Pantheon Report

Generated at 2018-04-04 02:51:02 (UTC).

Data path: Mexico Ethernet (*remote*) →AWS California 2 Ethernet (*local*).

Repeated the test of 17 congestion control schemes 10 times.

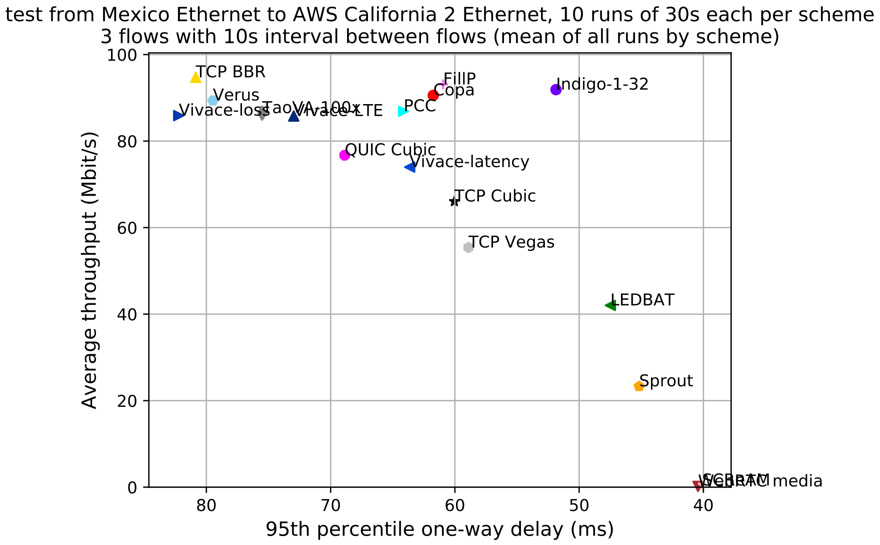
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

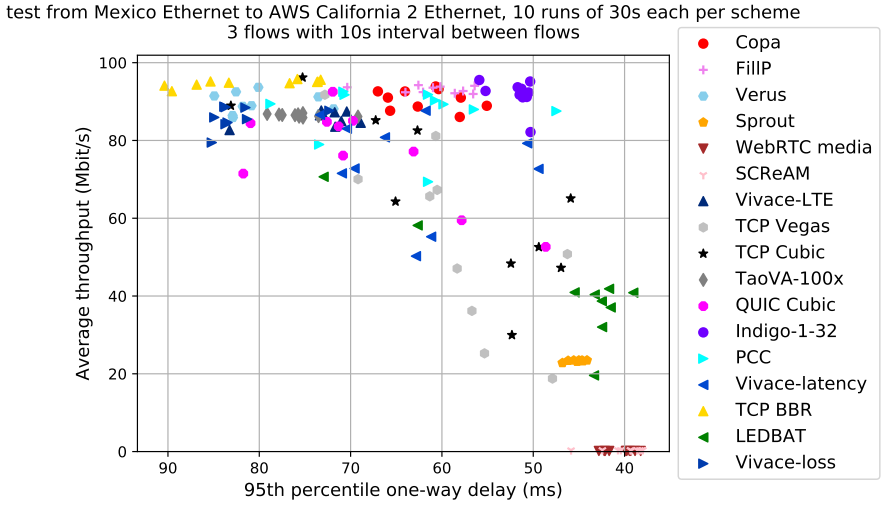
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

Tested BBR with qdisc of Fair Queuing (`fq`), and other schemes with the default Linux qdisc (`pfifo_fast`).

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ eb420b5be9bafccd22cf68b99ff5a2000462fc59
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ 11f8c46a2bf1dc797253db7e8ca04076272b2a44
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ f271183af822eee5d0031620f4bebf38aedc5581
```

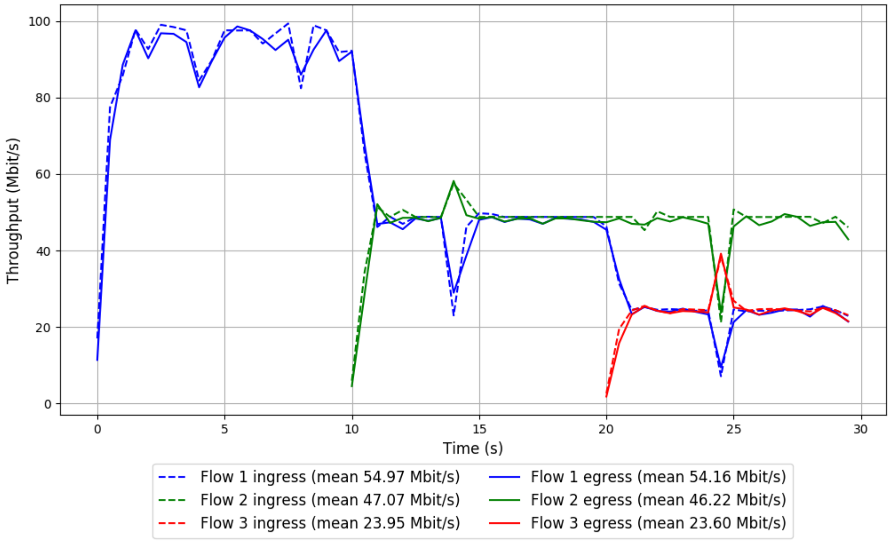

test from Mexico Ethernet to AWS California 2 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
100
80
60
40
20
0
80
70
60
50
40
TCP BBR
Verus
Vivace-loss
TaoVA-100x
Vivace-LTE
PCC
FillP
Copa
Indigo-1-32
QUIC Cubic
Vivace-latency
TCP Cubic
TCP Vegas
LEDBAT
Sprout
SCReAM
WebRTC media

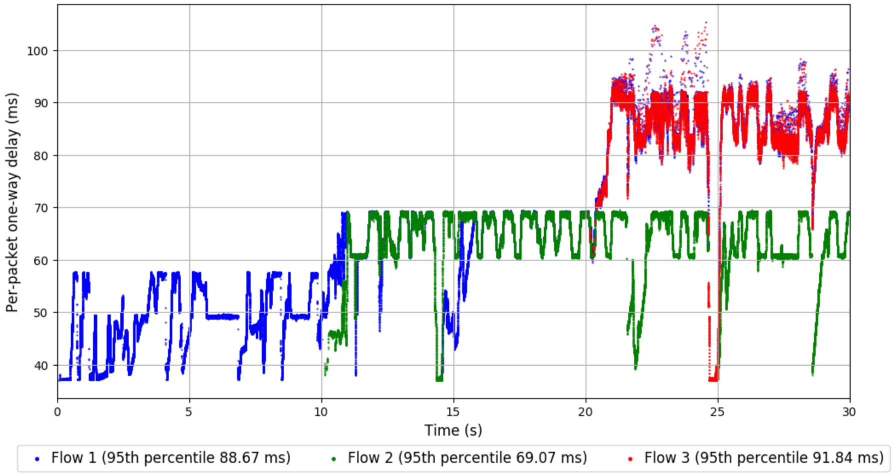

test from Mexico Ethernet to AWS California 2 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
100
80
60
40
20
0
90
80
70
60
50
40
Copa
FillP
Verus
Sprout
WebRTC media
SCReAM
Vivace-LTE
TCP Vegas
TCP Cubic
TaoVA-100x
QUIC Cubic
Indigo-1-32
PCC
Vivace-latency
TCP BBR
LEDBAT
Vivace-loss

scheme	# runs	mean avg tput (Mbit/s) flow 1	flow 2	flow 3	mean 95th-%ile delay (ms) flow 1	flow 2	flow 3	mean loss rate (%) flow 1	flow 2	flow 3
TCP BBR	10	58.10	40.01	30.42	75.41	77.01	81.24	0.55	0.77	1.39
TCP Cubic	10	35.88	28.10	35.00	54.97	54.66	62.02	0.34	0.53	0.95
LEDBAT	10	23.83	19.72	15.52	46.98	46.83	46.35	0.41	0.61	1.16
PCC	10	66.16	20.82	20.99	63.04	61.06	60.72	0.47	0.70	1.14
QUIC Cubic	10	44.77	33.77	29.07	67.97	63.86	67.36	0.39	0.61	1.30
SCReAM	10	0.19	0.21	0.21	39.86	39.60	39.79	0.32	0.36	0.52
WebRTC media	10	0.06	0.06	0.05	40.04	40.87	40.35	0.02	0.38	0.15
Sprout	10	11.79	11.71	11.41	44.88	45.26	45.47	0.33	0.47	0.79
TaoVA-100x	10	49.67	40.28	30.37	69.90	70.29	74.08	0.40	0.61	1.27
TCP Vegas	10	28.41	27.07	27.20	51.03	59.37	58.72	0.33	0.43	0.92
Verus	10	54.29	39.15	27.13	73.43	74.70	80.16	0.50	0.60	1.27
Copa	10	59.72	34.76	26.64	59.92	60.71	64.04	0.38	0.54	1.31
FillP	10	45.54	42.56	58.50	59.85	64.22	63.16	0.34	0.61	1.43
Indigo-1-32	10	58.33	37.03	27.65	52.44	51.05	51.81	0.39	0.60	1.02
Vivace-latency	10	51.64	26.35	14.87	62.00	62.11	58.83	0.51	0.98	1.77
Vivace-loss	9	52.10	39.46	23.09	76.43	74.07	82.96	0.61	1.39	2.96
Vivace-LTE	10	55.97	33.18	23.70	69.64	74.61	72.83	0.43	0.64	1.17

```
Run 1: Statistics of TCP BBR

Start at: 2018-04-03 17:06:12
End at: 2018-04-03 17:06:42
Local clock offset: 0.399 ms
Remote clock offset: -2.024 ms

# Below is generated by plot.py at 2018-04-04 02:26:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.67 Mbit/s
95th percentile per-packet one-way delay: 89.571 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 54.16 Mbit/s
95th percentile per-packet one-way delay: 88.671 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 46.22 Mbit/s
95th percentile per-packet one-way delay: 69.072 ms
Loss rate: 2.18%
-- Flow 3:
Average throughput: 23.60 Mbit/s
95th percentile per-packet one-way delay: 91.838 ms
Loss rate: 2.70%
```

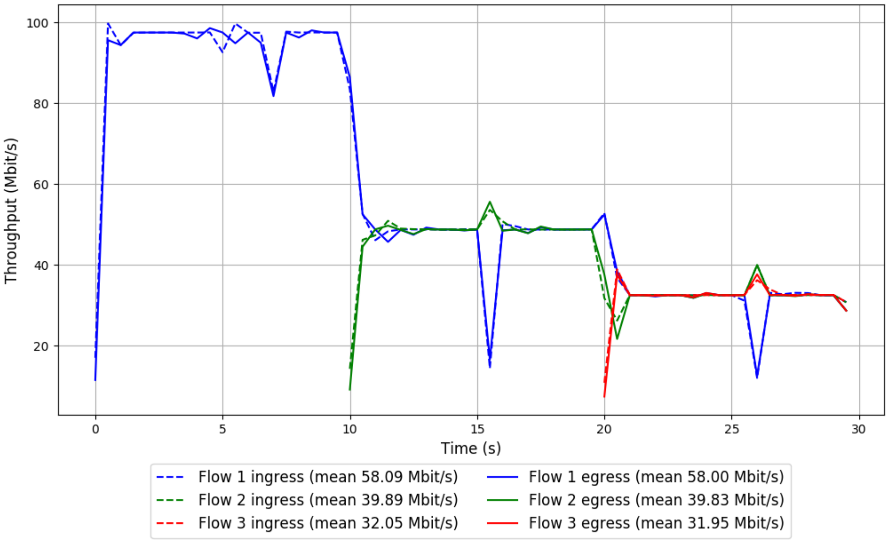
Run 1: Report of TCP BBR — Data Link

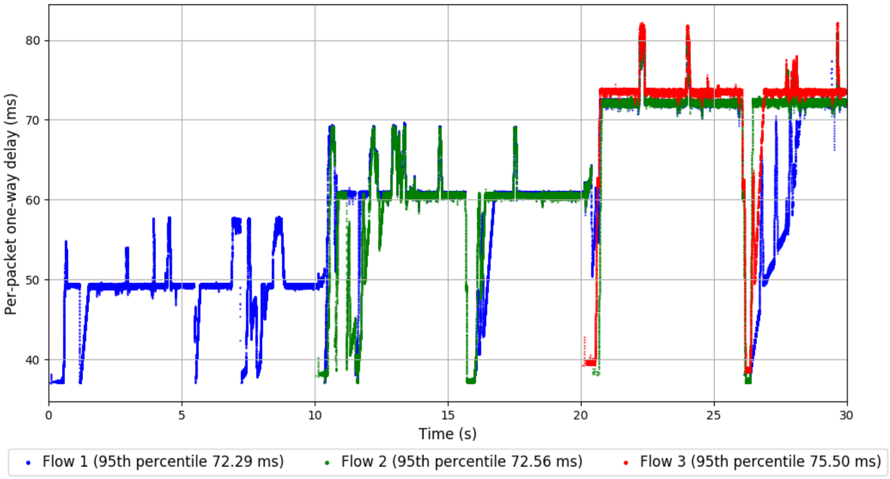




```
Run 2: Statistics of TCP BBR

Start at: 2018-04-03 17:31:43
End at: 2018-04-03 17:32:13
Local clock offset: 0.454 ms
Remote clock offset: -4.083 ms

# Below is generated by plot.py at 2018-04-04 02:26:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.05 Mbit/s
95th percentile per-packet one-way delay: 73.665 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 58.00 Mbit/s
95th percentile per-packet one-way delay: 72.286 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 39.83 Mbit/s
95th percentile per-packet one-way delay: 72.565 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 31.95 Mbit/s
95th percentile per-packet one-way delay: 75.505 ms
Loss rate: 1.11%
```

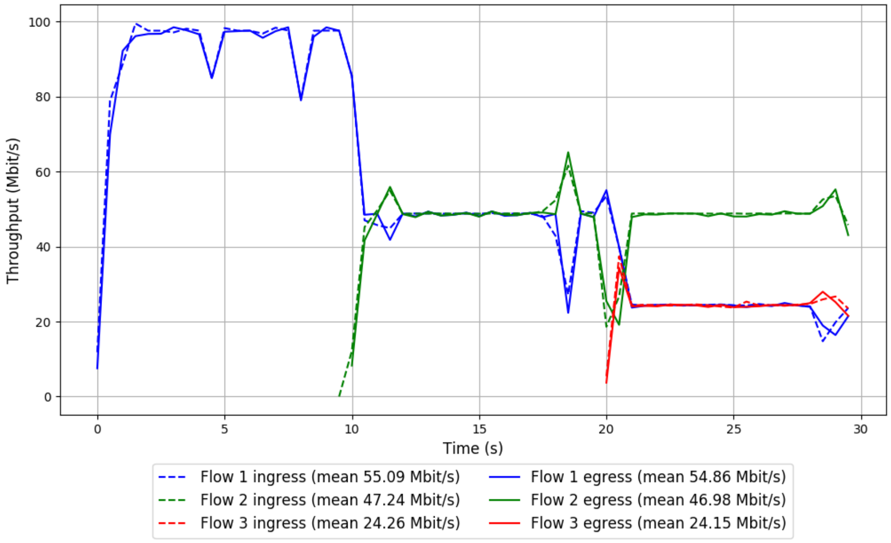
Run 2: Report of TCP BBR — Data Link

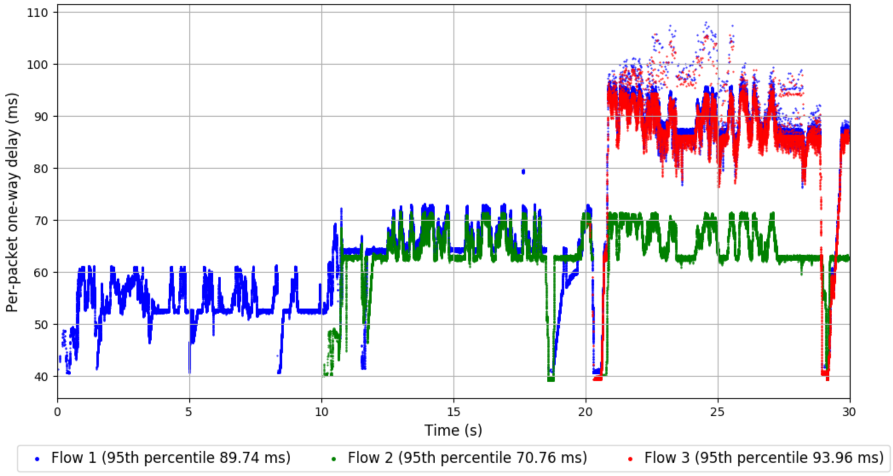




```
Run 3: Statistics of TCP BBR

Start at: 2018-04-03 17:56:36
End at: 2018-04-03 17:57:06
Local clock offset: 0.326 ms
Remote clock offset: -4.936 ms

# Below is generated by plot.py at 2018-04-04 02:26:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.10 Mbit/s
95th percentile per-packet one-way delay: 90.381 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 54.86 Mbit/s
95th percentile per-packet one-way delay: 89.741 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 46.98 Mbit/s
95th percentile per-packet one-way delay: 70.764 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 24.15 Mbit/s
95th percentile per-packet one-way delay: 93.960 ms
Loss rate: 1.65%
```

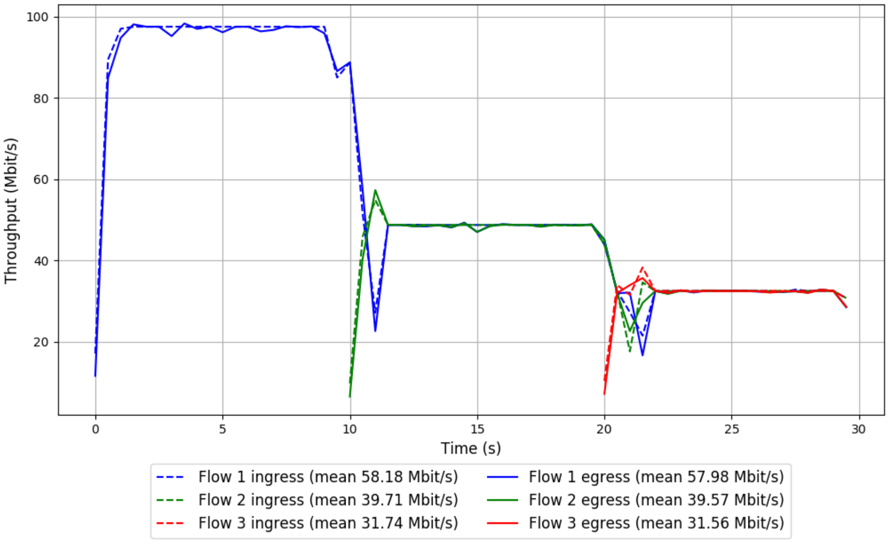
Run 3: Report of TCP BBR — Data Link

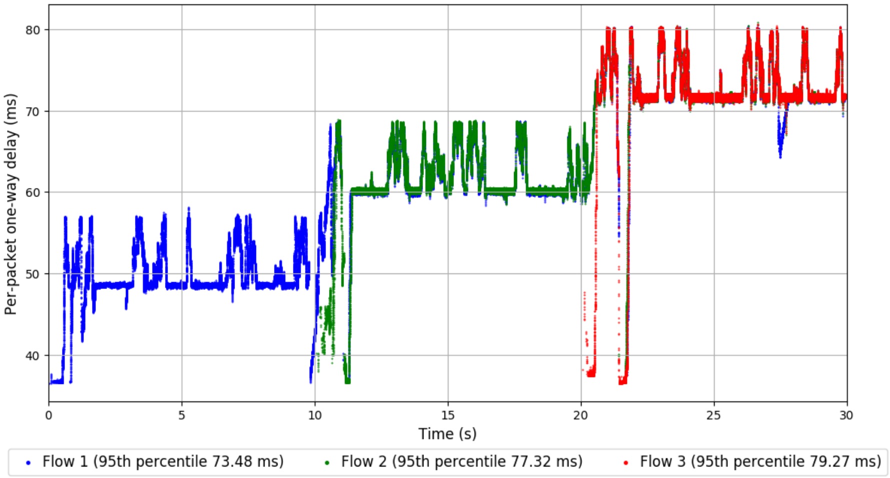




```
Run 4: Statistics of TCP BBR

Start at: 2018-04-03 18:21:26
End at: 2018-04-03 18:21:56
Local clock offset: 0.288 ms
Remote clock offset: -2.472 ms

# Below is generated by plot.py at 2018-04-04 02:26:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.73 Mbit/s
95th percentile per-packet one-way delay: 76.680 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 57.98 Mbit/s
95th percentile per-packet one-way delay: 73.482 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 39.57 Mbit/s
95th percentile per-packet one-way delay: 77.324 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 31.56 Mbit/s
95th percentile per-packet one-way delay: 79.271 ms
Loss rate: 1.40%
```

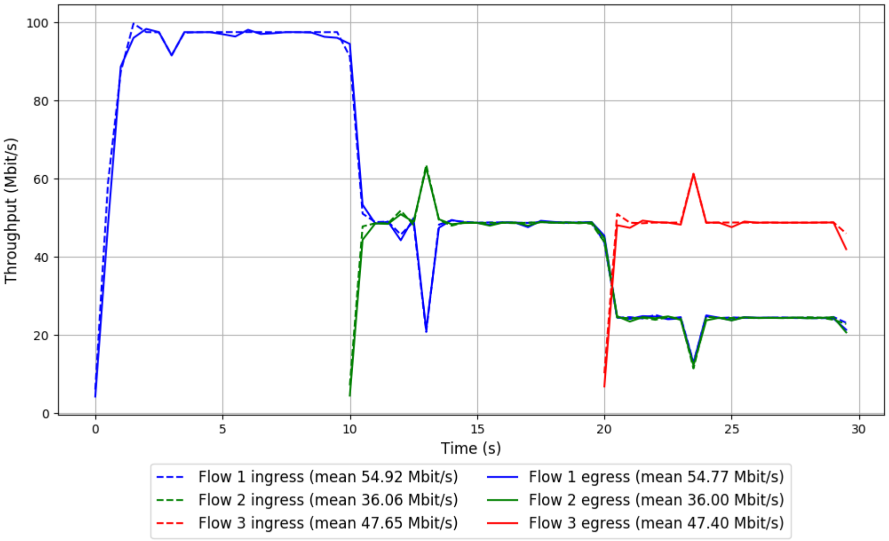
Run 4: Report of TCP BBR — Data Link

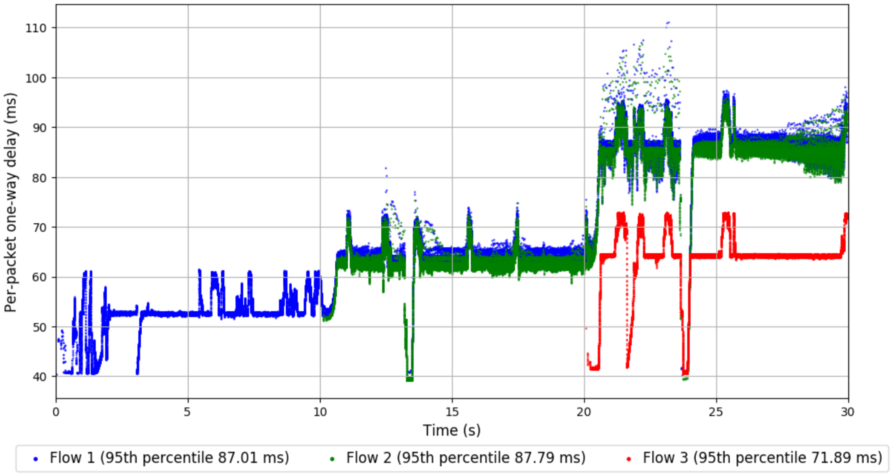




```
Run 5: Statistics of TCP BBR

Start at: 2018-04-03 18:46:53
End at: 2018-04-03 18:47:23
Local clock offset: -0.044 ms
Remote clock offset: -8.063 ms

# Below is generated by plot.py at 2018-04-04 02:26:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.36 Mbit/s
95th percentile per-packet one-way delay: 86.857 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 54.77 Mbit/s
95th percentile per-packet one-way delay: 87.012 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 36.00 Mbit/s
95th percentile per-packet one-way delay: 87.792 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 47.40 Mbit/s
95th percentile per-packet one-way delay: 71.890 ms
Loss rate: 1.30%
```

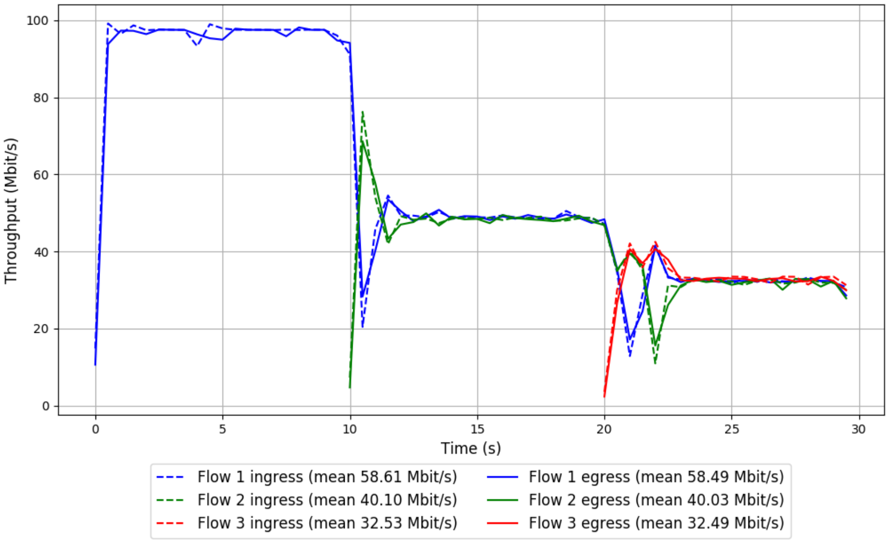
Run 5: Report of TCP BBR — Data Link

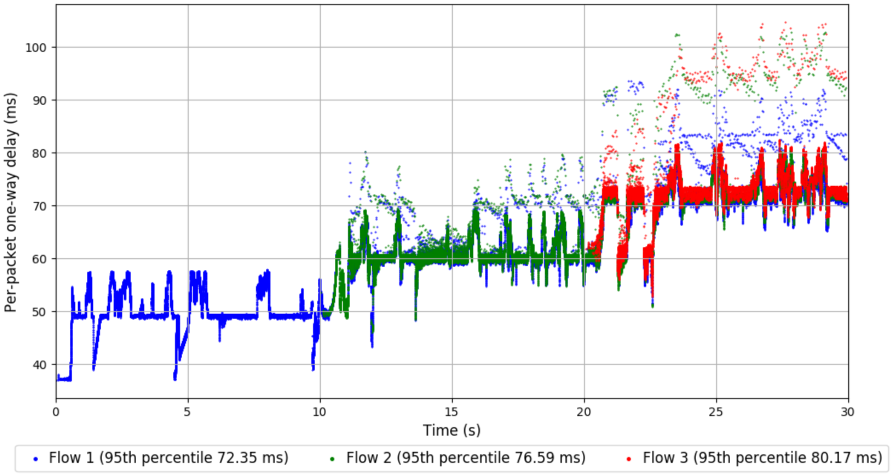




```
Run 6: Statistics of TCP BBR

Start at: 2018-04-03 19:12:12
End at: 2018-04-03 19:12:42
Local clock offset: -0.322 ms
Remote clock offset: -3.202 ms

# Below is generated by plot.py at 2018-04-04 02:26:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 75.827 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 58.49 Mbit/s
95th percentile per-packet one-way delay: 72.352 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 40.03 Mbit/s
95th percentile per-packet one-way delay: 76.586 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 80.165 ms
Loss rate: 1.28%
```

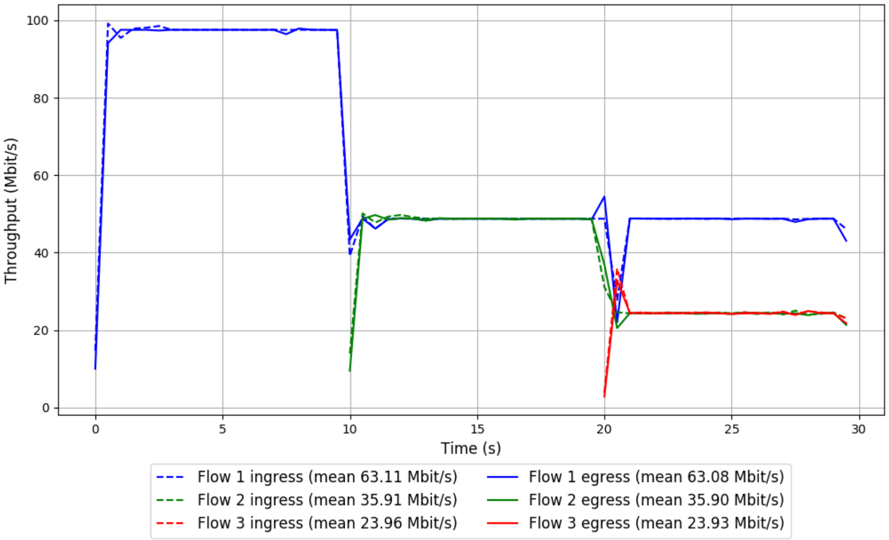
Run 6: Report of TCP BBR — Data Link

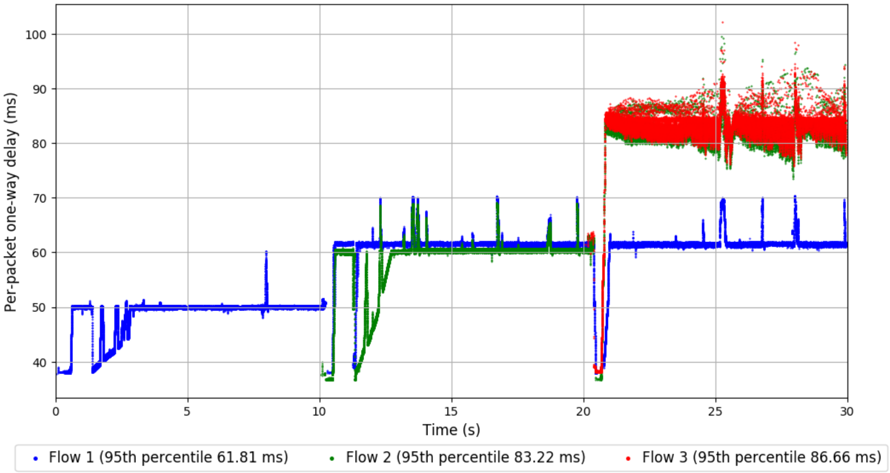




```
Run 7: Statistics of TCP BBR

Start at: 2018-04-03 19:37:25
End at: 2018-04-03 19:37:55
Local clock offset: -0.192 ms
Remote clock offset: -2.612 ms

# Below is generated by plot.py at 2018-04-04 02:26:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.85 Mbit/s
95th percentile per-packet one-way delay: 83.332 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 63.08 Mbit/s
95th percentile per-packet one-way delay: 61.813 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 35.90 Mbit/s
95th percentile per-packet one-way delay: 83.217 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 23.93 Mbit/s
95th percentile per-packet one-way delay: 86.661 ms
Loss rate: 1.23%
```

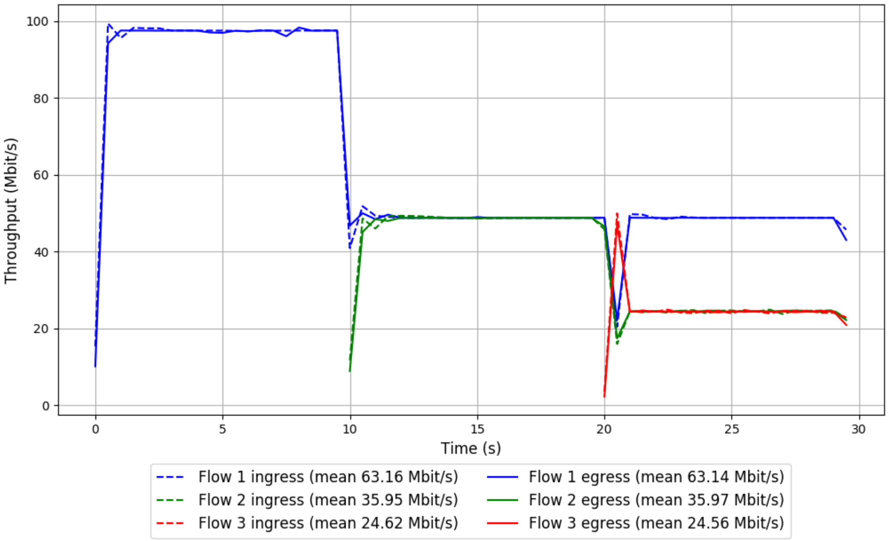
Run 7: Report of TCP BBR — Data Link

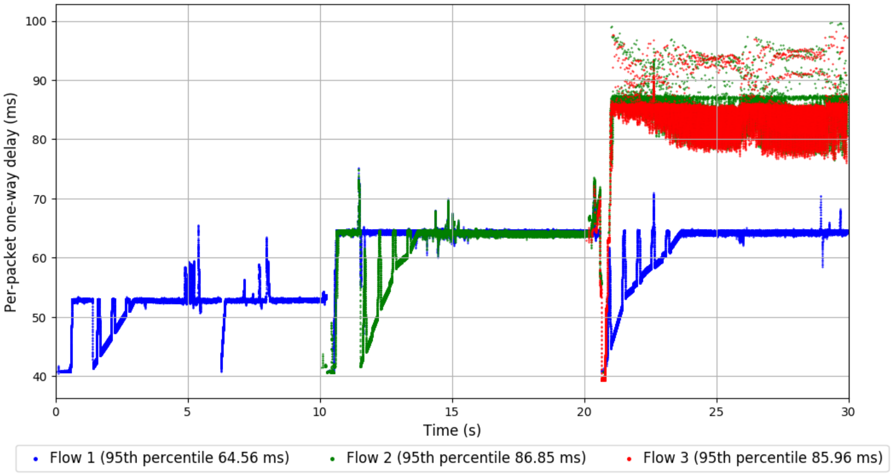




```
Run 8: Statistics of TCP BBR

Start at: 2018-04-03 20:02:24
End at: 2018-04-03 20:02:54
Local clock offset: 0.236 ms
Remote clock offset: -5.078 ms

# Below is generated by plot.py at 2018-04-04 02:26:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.17 Mbit/s
95th percentile per-packet one-way delay: 85.339 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 63.14 Mbit/s
95th percentile per-packet one-way delay: 64.564 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 35.97 Mbit/s
95th percentile per-packet one-way delay: 86.846 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 24.56 Mbit/s
95th percentile per-packet one-way delay: 85.956 ms
Loss rate: 1.14%
```

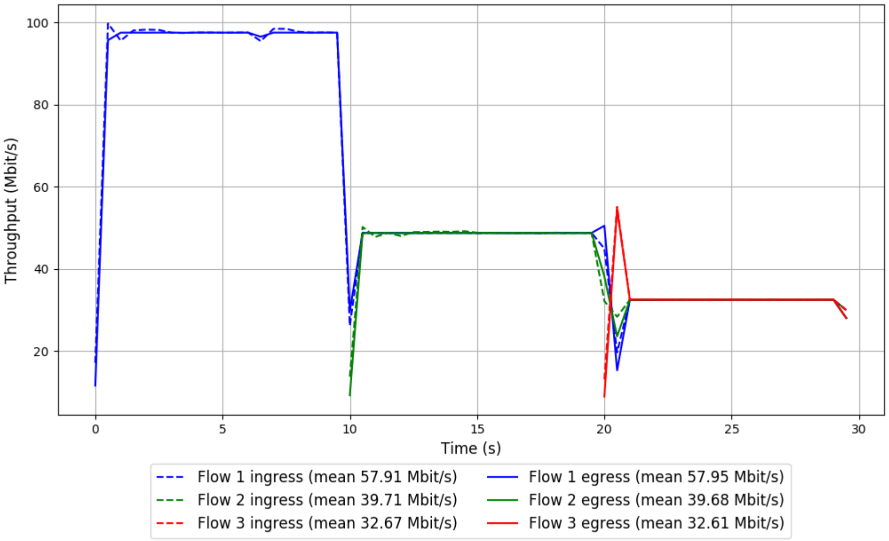
Run 8: Report of TCP BBR — Data Link

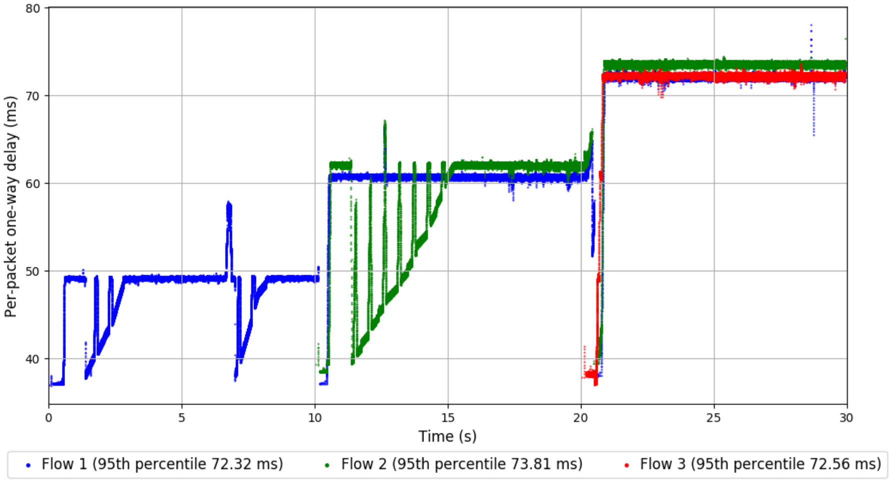




```
Run 9: Statistics of TCP BBR

Start at: 2018-04-03 20:27:19
End at: 2018-04-03 20:27:49
Local clock offset: 0.754 ms
Remote clock offset: -1.415 ms

# Below is generated by plot.py at 2018-04-04 02:27:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.11 Mbit/s
95th percentile per-packet one-way delay: 73.600 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 57.95 Mbit/s
95th percentile per-packet one-way delay: 72.316 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 39.68 Mbit/s
95th percentile per-packet one-way delay: 73.813 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 32.61 Mbit/s
95th percentile per-packet one-way delay: 72.563 ms
Loss rate: 1.02%
```

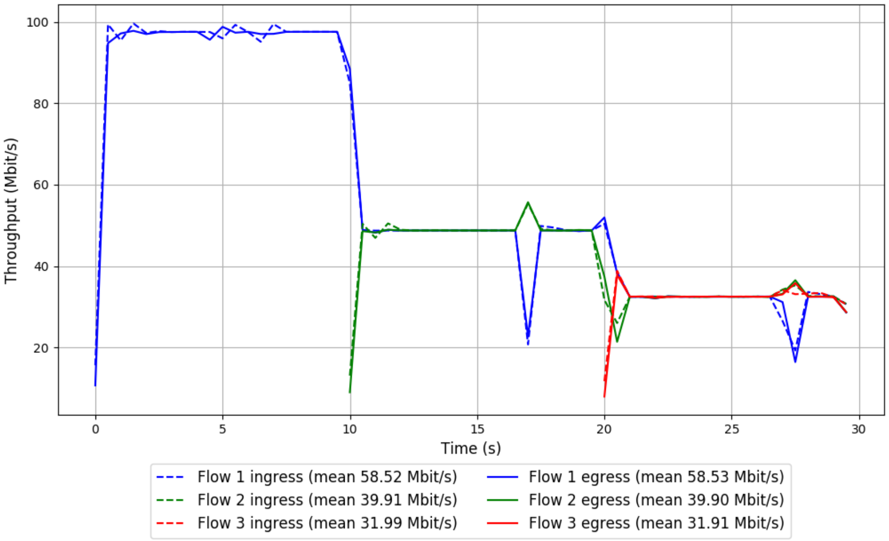
Run 9: Report of TCP BBR — Data Link

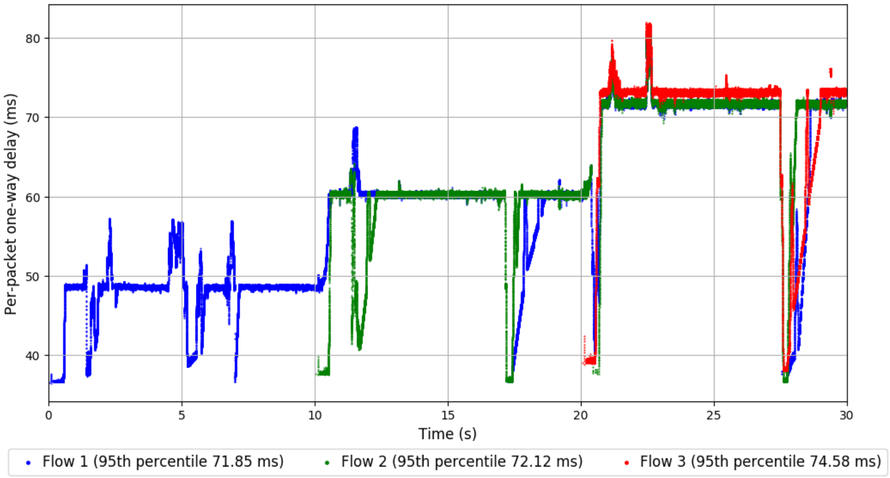




```
Run 10: Statistics of TCP BBR

Start at: 2018-04-03 20:52:31
End at: 2018-04-03 20:53:01
Local clock offset: 0.65 ms
Remote clock offset: -1.545 ms

# Below is generated by plot.py at 2018-04-04 02:27:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 73.276 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 58.53 Mbit/s
95th percentile per-packet one-way delay: 71.853 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 39.90 Mbit/s
95th percentile per-packet one-way delay: 72.116 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 74.582 ms
Loss rate: 1.10%
```

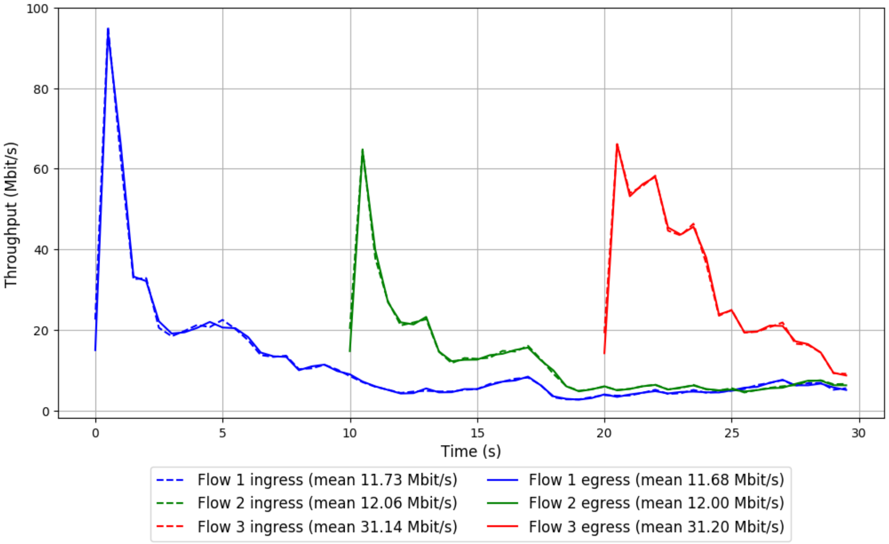
Run 10: Report of TCP BBR — Data Link

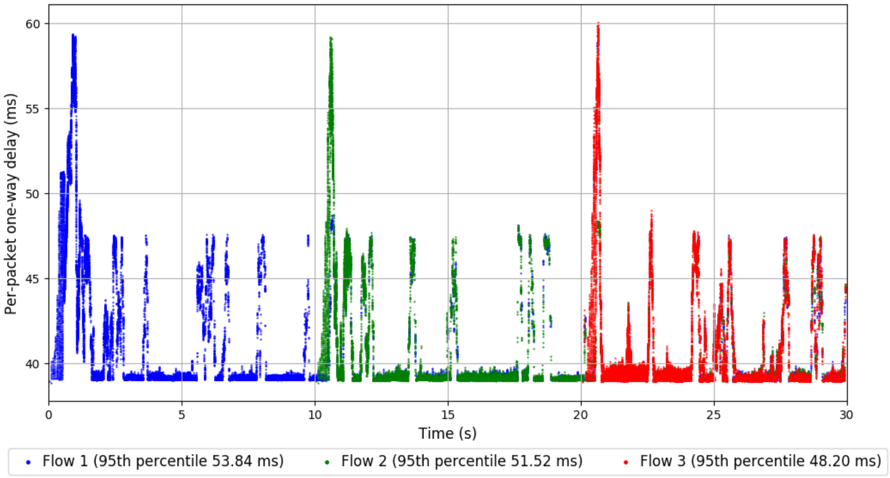




```
Run 1: Statistics of TCP Cubic

Start at: 2018-04-03 17:11:53
End at: 2018-04-03 17:12:23
Local clock offset: 0.317 ms
Remote clock offset: -4.324 ms

# Below is generated by plot.py at 2018-04-04 02:27:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.96 Mbit/s
95th percentile per-packet one-way delay: 52.335 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 11.68 Mbit/s
95th percentile per-packet one-way delay: 53.838 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 12.00 Mbit/s
95th percentile per-packet one-way delay: 51.520 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 31.20 Mbit/s
95th percentile per-packet one-way delay: 48.203 ms
Loss rate: 0.56%
```

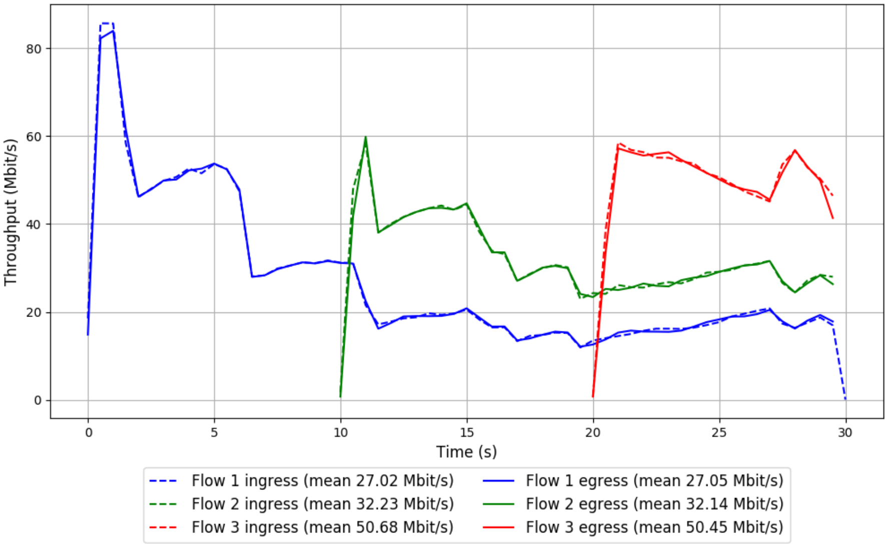
Run 1: Report of TCP Cubic — Data Link

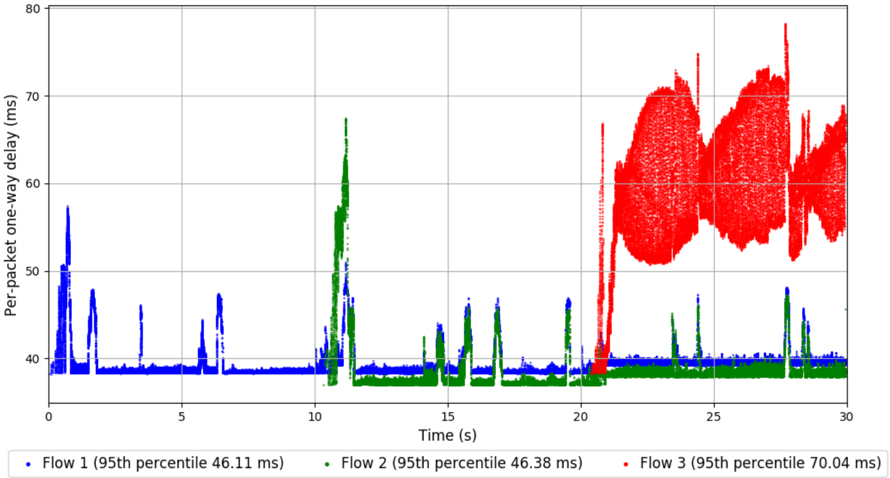




```
Run 2: Statistics of TCP Cubic

Start at: 2018-04-03 17:37:16
End at: 2018-04-03 17:37:46
Local clock offset: 0.503 ms
Remote clock offset: -4.297 ms

# Below is generated by plot.py at 2018-04-04 02:27:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.30 Mbit/s
95th percentile per-packet one-way delay: 65.081 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 27.05 Mbit/s
95th percentile per-packet one-way delay: 46.107 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 32.14 Mbit/s
95th percentile per-packet one-way delay: 46.378 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 50.45 Mbit/s
95th percentile per-packet one-way delay: 70.043 ms
Loss rate: 1.21%
```

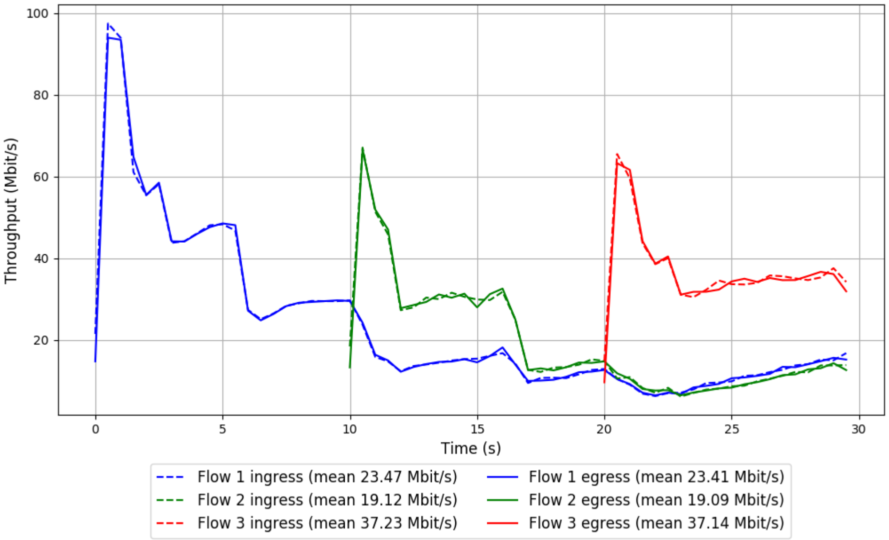
Run 2: Report of TCP Cubic — Data Link

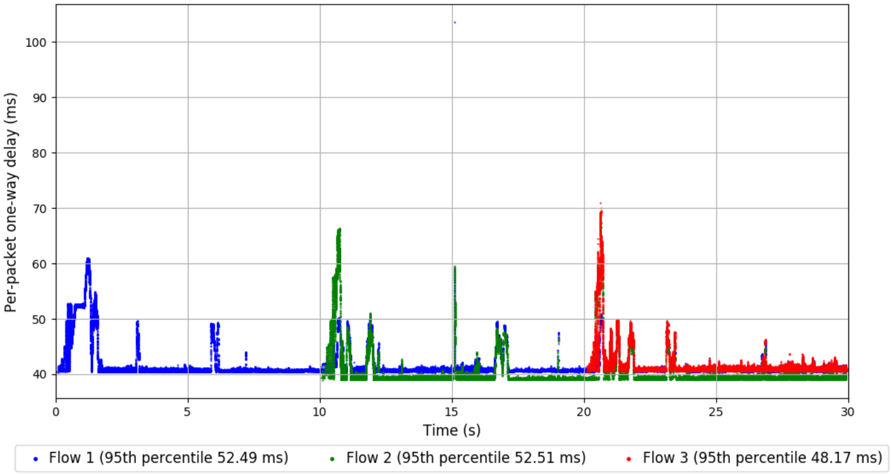




```
Run 3: Statistics of TCP Cubic

Start at: 2018-04-03 18:02:05
End at: 2018-04-03 18:02:35
Local clock offset: 0.161 ms
Remote clock offset: -4.558 ms

# Below is generated by plot.py at 2018-04-04 02:27:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.35 Mbit/s
95th percentile per-packet one-way delay: 52.448 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 23.41 Mbit/s
95th percentile per-packet one-way delay: 52.495 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 19.09 Mbit/s
95th percentile per-packet one-way delay: 52.505 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 37.14 Mbit/s
95th percentile per-packet one-way delay: 48.170 ms
Loss rate: 0.91%
```

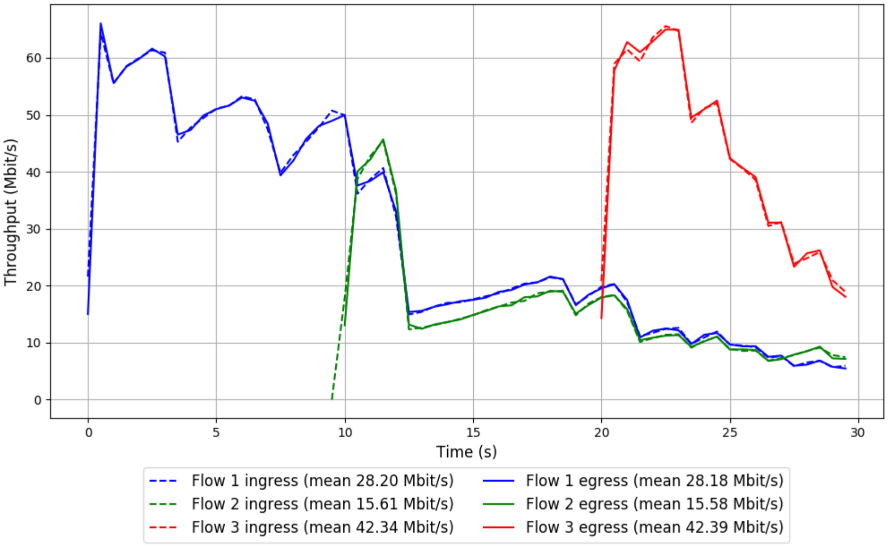
Run 3: Report of TCP Cubic — Data Link

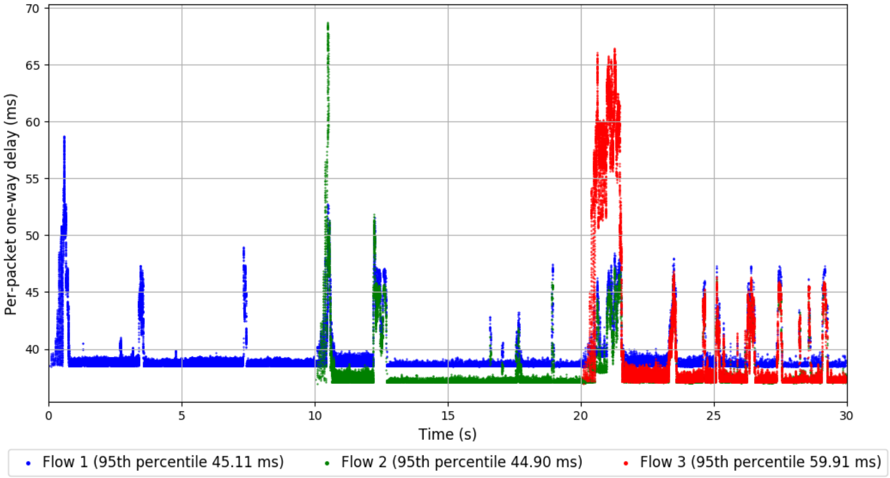




```
Run 4: Statistics of TCP Cubic

Start at: 2018-04-03 18:27:17
End at: 2018-04-03 18:27:47
Local clock offset: 0.168 ms
Remote clock offset: -4.271 ms

# Below is generated by plot.py at 2018-04-04 02:27:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.58 Mbit/s
95th percentile per-packet one-way delay: 49.391 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 28.18 Mbit/s
95th percentile per-packet one-way delay: 45.106 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 15.58 Mbit/s
95th percentile per-packet one-way delay: 44.903 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 42.39 Mbit/s
95th percentile per-packet one-way delay: 59.915 ms
Loss rate: 0.57%
```

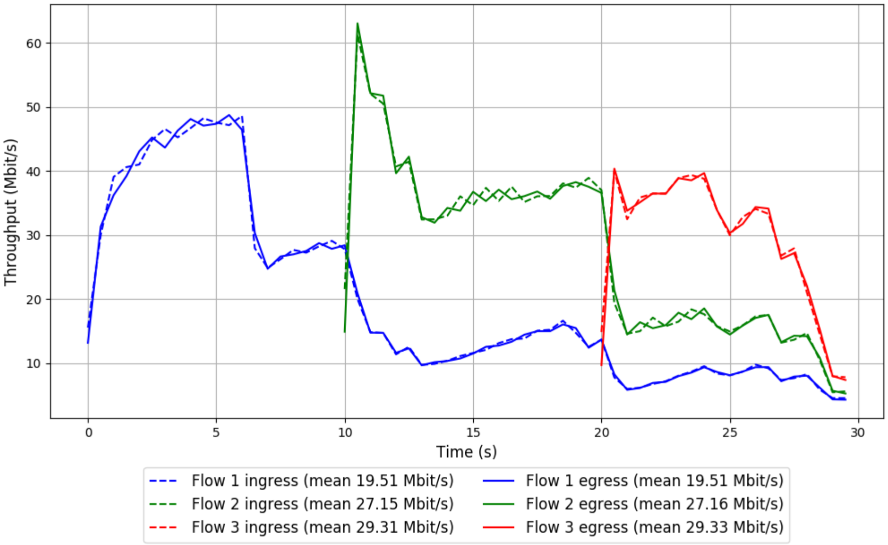
Run 4: Report of TCP Cubic — Data Link

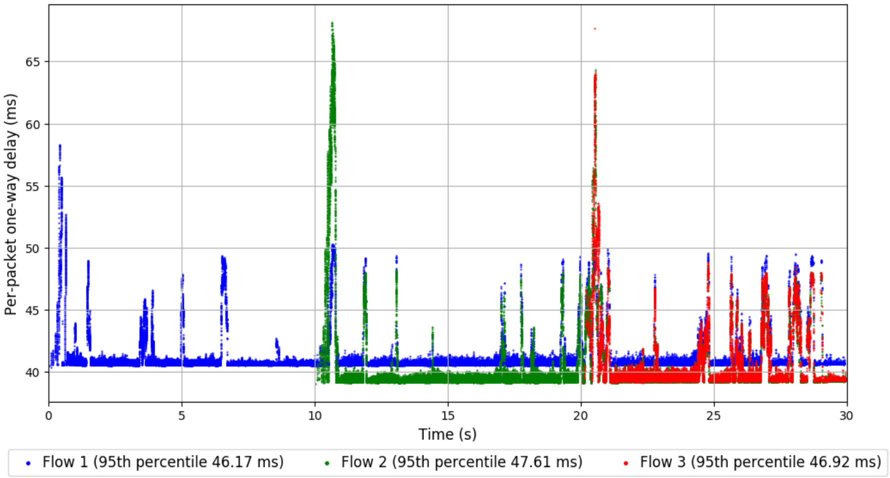




```
Run 5: Statistics of TCP Cubic

Start at: 2018-04-03 18:52:34
End at: 2018-04-03 18:53:04
Local clock offset: -0.092 ms
Remote clock offset: -8.375 ms

# Below is generated by plot.py at 2018-04-04 02:27:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.25 Mbit/s
95th percentile per-packet one-way delay: 46.959 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 19.51 Mbit/s
95th percentile per-packet one-way delay: 46.175 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 27.16 Mbit/s
95th percentile per-packet one-way delay: 47.608 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 29.33 Mbit/s
95th percentile per-packet one-way delay: 46.925 ms
Loss rate: 0.63%
```

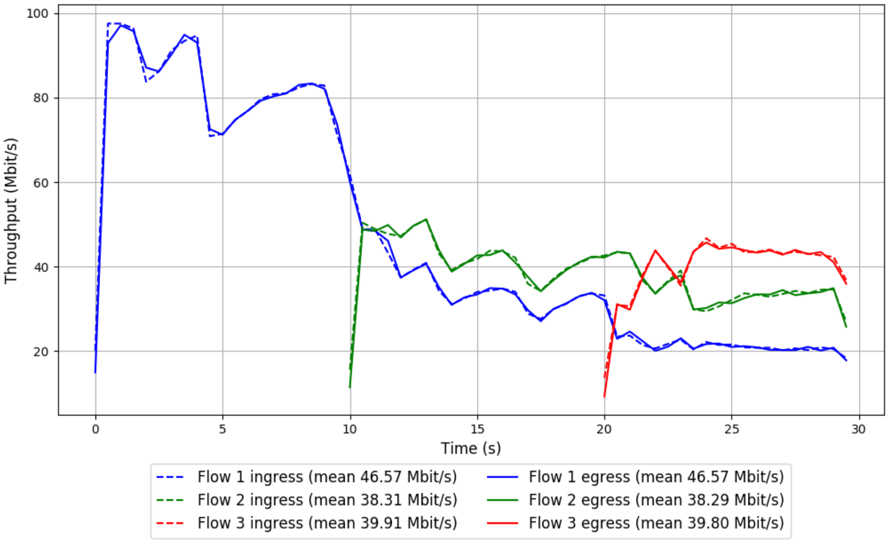
Run 5: Report of TCP Cubic — Data Link

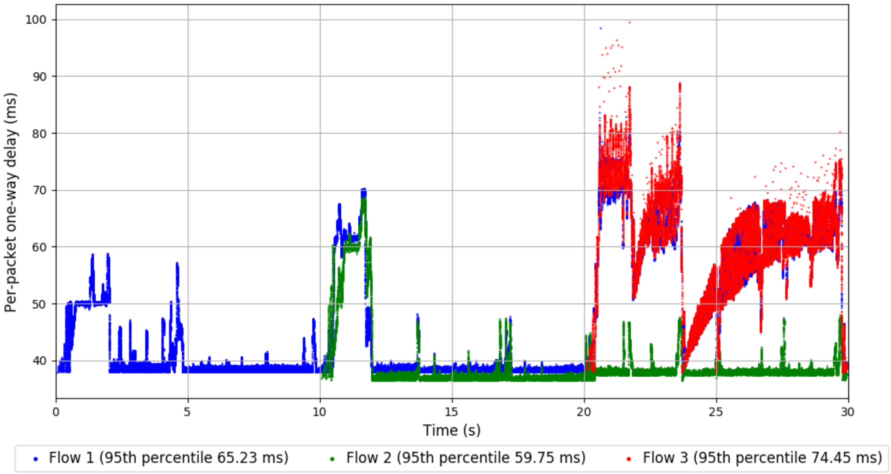




```
Run 6: Statistics of TCP Cubic

Start at: 2018-04-03 19:17:51
End at: 2018-04-03 19:18:21
Local clock offset: -0.449 ms
Remote clock offset: -2.595 ms

# Below is generated by plot.py at 2018-04-04 02:27:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.19 Mbit/s
95th percentile per-packet one-way delay: 67.253 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 46.57 Mbit/s
95th percentile per-packet one-way delay: 65.226 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 38.29 Mbit/s
95th percentile per-packet one-way delay: 59.754 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 39.80 Mbit/s
95th percentile per-packet one-way delay: 74.447 ms
Loss rate: 0.97%
```

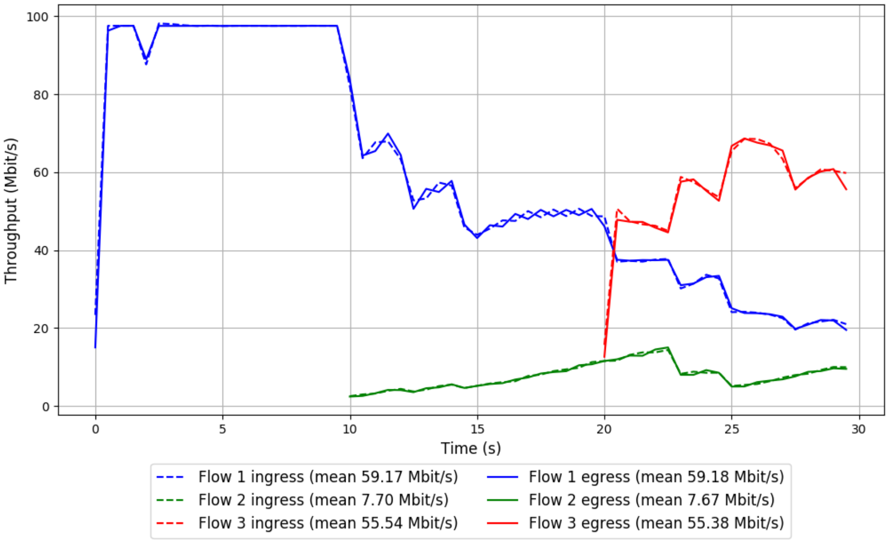
Run 6: Report of TCP Cubic — Data Link

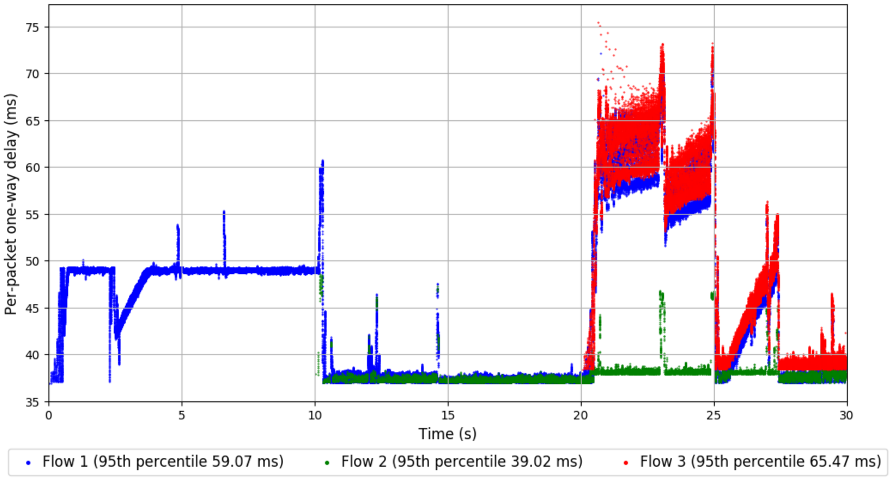




```
Run 7: Statistics of TCP Cubic

Start at: 2018-04-03 19:42:55
End at: 2018-04-03 19:43:25
Local clock offset: -0.029 ms
Remote clock offset: -3.141 ms

# Below is generated by plot.py at 2018-04-04 02:27:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.57 Mbit/s
95th percentile per-packet one-way delay: 62.678 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 59.18 Mbit/s
95th percentile per-packet one-way delay: 59.073 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 7.67 Mbit/s
95th percentile per-packet one-way delay: 39.021 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 55.38 Mbit/s
95th percentile per-packet one-way delay: 65.473 ms
Loss rate: 0.94%
```

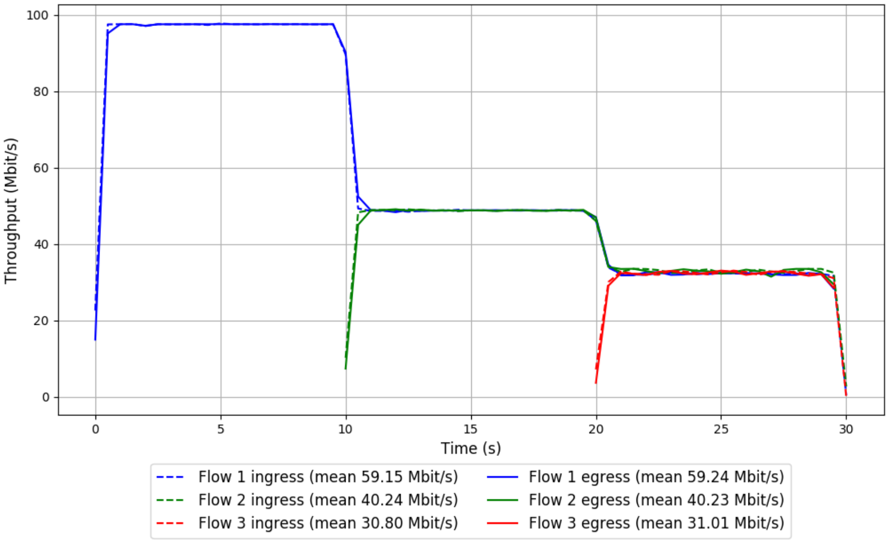
Run 7: Report of TCP Cubic — Data Link

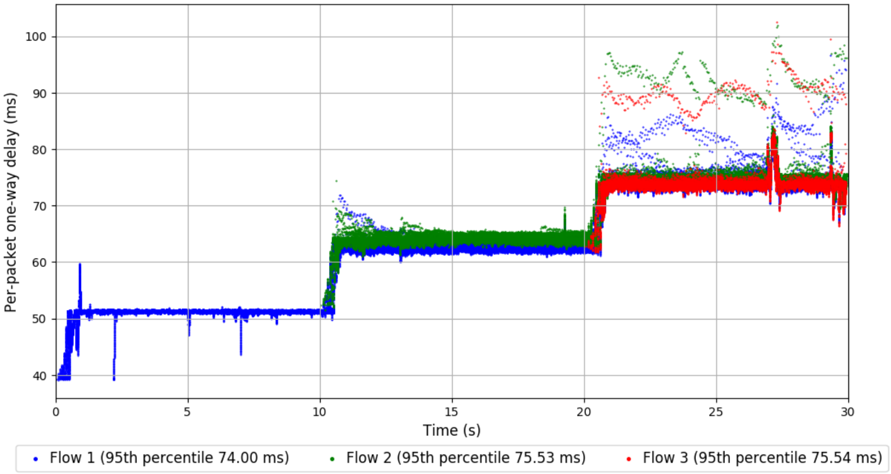




```
Run 8: Statistics of TCP Cubic

Start at: 2018-04-03 20:07:57
End at: 2018-04-03 20:08:27
Local clock offset: 0.429 ms
Remote clock offset: -4.635 ms

# Below is generated by plot.py at 2018-04-04 02:28:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.20 Mbit/s
95th percentile per-packet one-way delay: 75.261 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 59.24 Mbit/s
95th percentile per-packet one-way delay: 74.000 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 40.23 Mbit/s
95th percentile per-packet one-way delay: 75.527 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 31.01 Mbit/s
95th percentile per-packet one-way delay: 75.540 ms
Loss rate: 1.36%
```

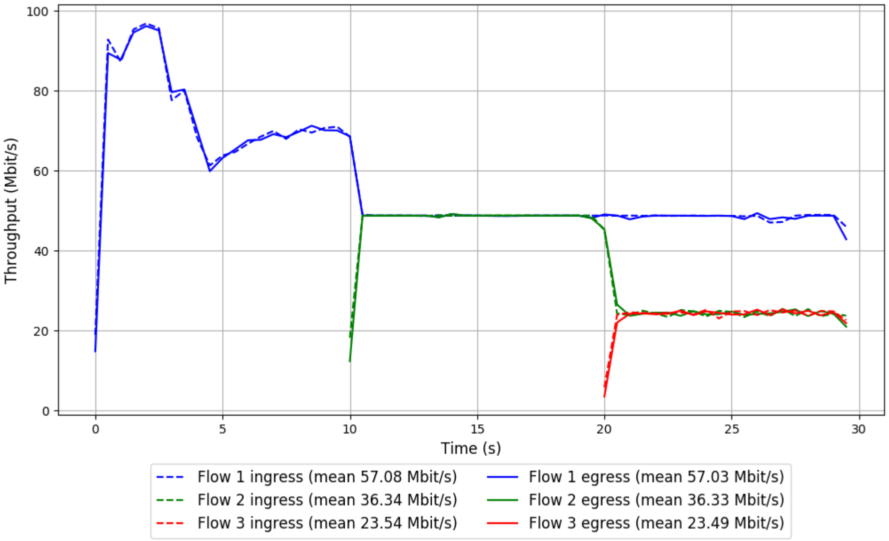
Run 8: Report of TCP Cubic — Data Link

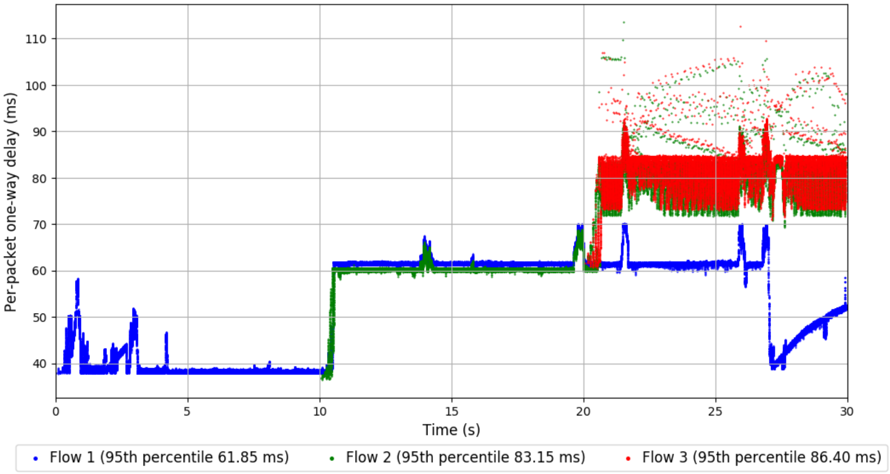




```
Run 9: Statistics of TCP Cubic

Start at: 2018-04-03 20:32:51
End at: 2018-04-03 20:33:21
Local clock offset: 0.805 ms
Remote clock offset: -0.766 ms

# Below is generated by plot.py at 2018-04-04 02:28:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.94 Mbit/s
95th percentile per-packet one-way delay: 83.111 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 57.03 Mbit/s
95th percentile per-packet one-way delay: 61.849 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 36.33 Mbit/s
95th percentile per-packet one-way delay: 83.153 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 23.49 Mbit/s
95th percentile per-packet one-way delay: 86.396 ms
Loss rate: 1.28%
```

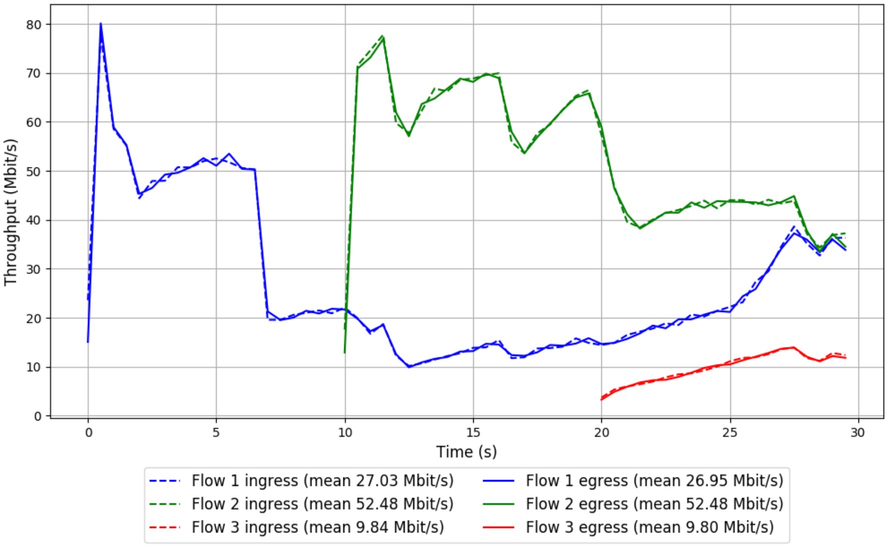
Run 9: Report of TCP Cubic — Data Link

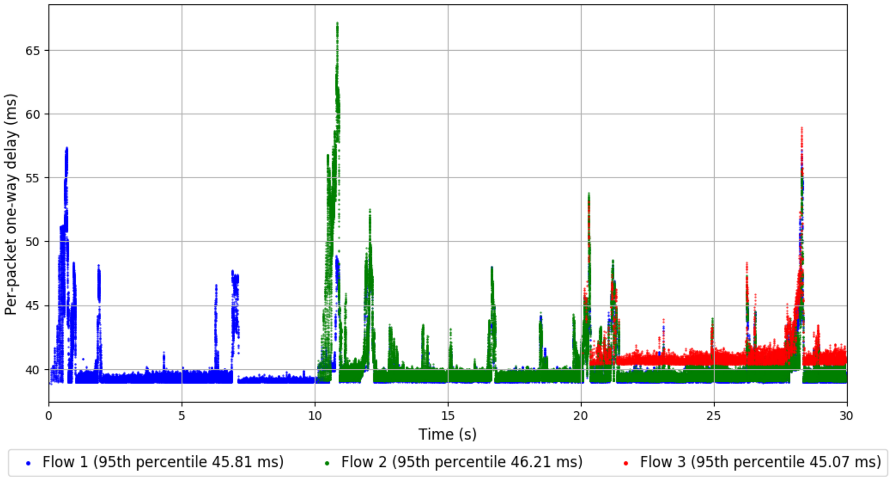




```
Run 10: Statistics of TCP Cubic

Start at: 2018-04-03 20:58:08
End at: 2018-04-03 20:58:38
Local clock offset: 0.565 ms
Remote clock offset: -4.257 ms

# Below is generated by plot.py at 2018-04-04 02:28:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.10 Mbit/s
95th percentile per-packet one-way delay: 45.900 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 26.95 Mbit/s
95th percentile per-packet one-way delay: 45.814 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 52.48 Mbit/s
95th percentile per-packet one-way delay: 46.211 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 9.80 Mbit/s
95th percentile per-packet one-way delay: 45.069 ms
Loss rate: 1.09%
```

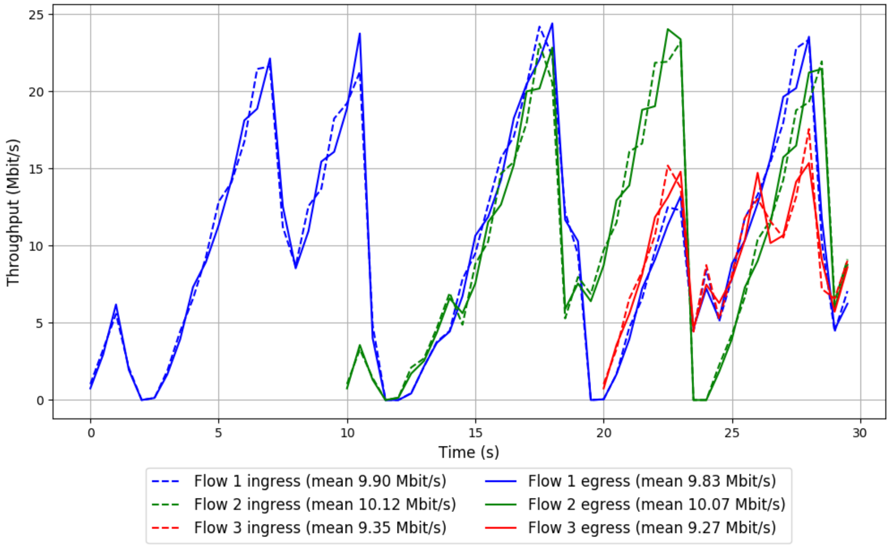
Run 10: Report of TCP Cubic — Data Link

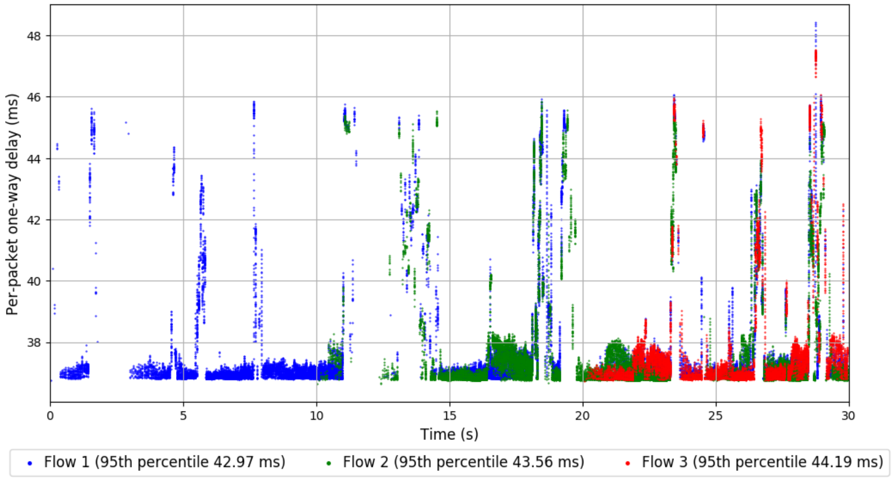




```
Run 1: Statistics of LEDBAT

Start at: 2018-04-03 17:01:56
End at: 2018-04-03 17:02:26
Local clock offset: 0.403 ms
Remote clock offset: -1.644 ms

# Below is generated by plot.py at 2018-04-04 02:28:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.58 Mbit/s
95th percentile per-packet one-way delay: 43.348 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 9.83 Mbit/s
95th percentile per-packet one-way delay: 42.967 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 10.07 Mbit/s
95th percentile per-packet one-way delay: 43.556 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 9.27 Mbit/s
95th percentile per-packet one-way delay: 44.191 ms
Loss rate: 1.58%
```

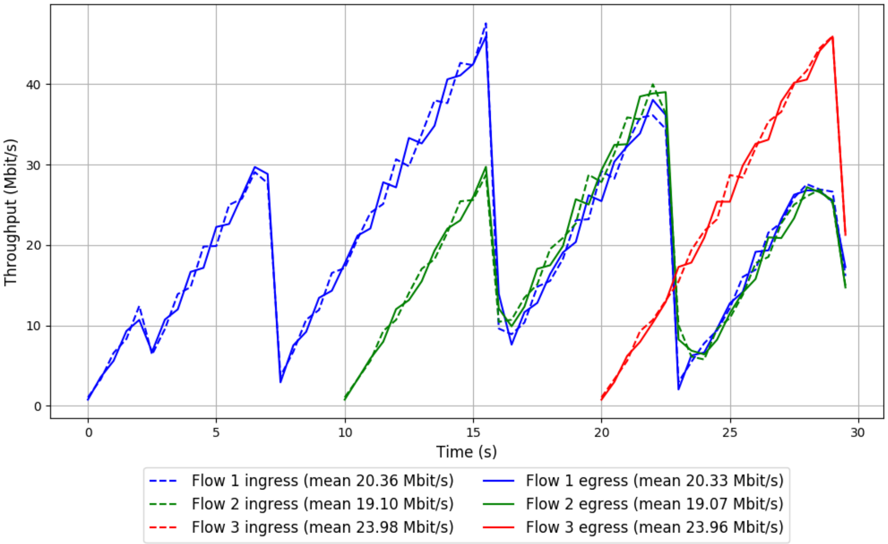
Run 1: Report of LEDBAT — Data Link

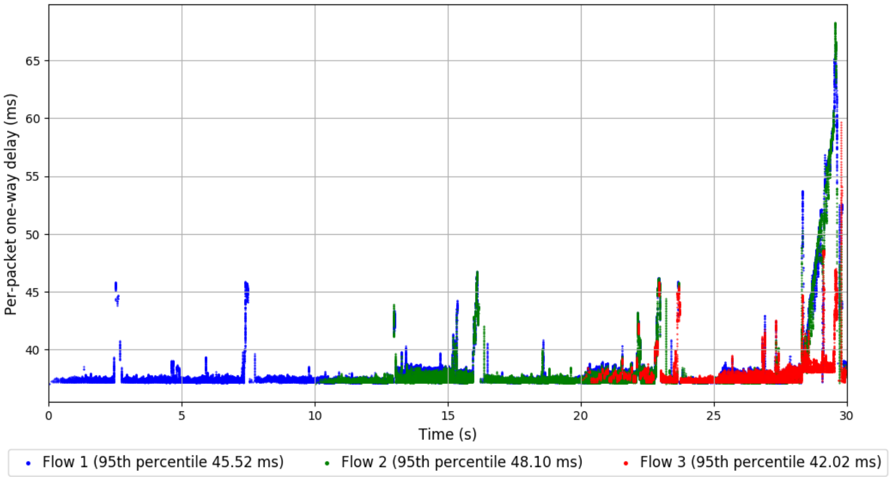




```
Run 2: Statistics of LEDBAT

Start at: 2018-04-03 17:27:36
End at: 2018-04-03 17:28:06
Local clock offset: 0.471 ms
Remote clock offset: -3.83 ms

# Below is generated by plot.py at 2018-04-04 02:28:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.93 Mbit/s
95th percentile per-packet one-way delay: 45.470 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 20.33 Mbit/s
95th percentile per-packet one-way delay: 45.515 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 19.07 Mbit/s
95th percentile per-packet one-way delay: 48.100 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 23.96 Mbit/s
95th percentile per-packet one-way delay: 42.022 ms
Loss rate: 0.75%
```

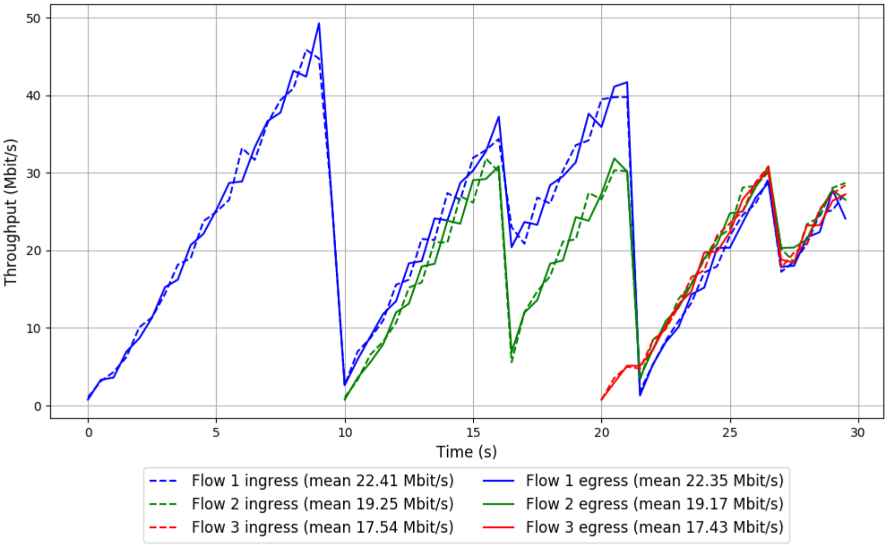
Run 2: Report of LEDBAT — Data Link

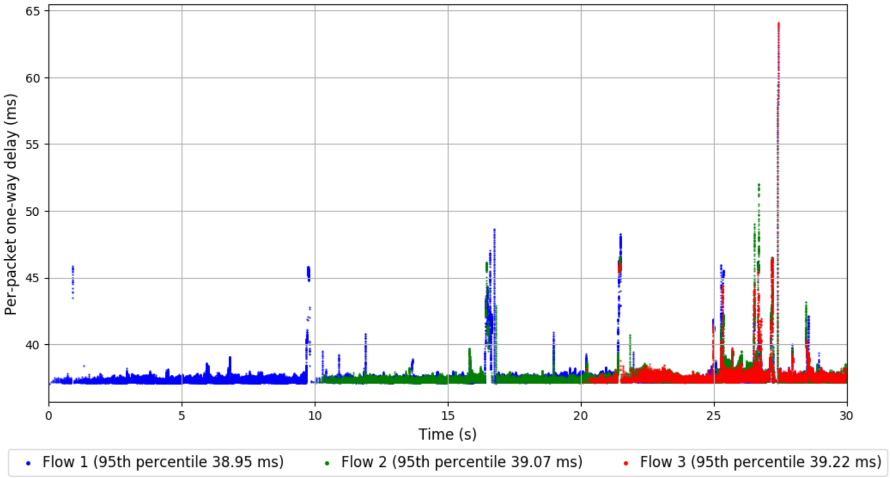




```
Run 3: Statistics of LEDBAT

Start at: 2018-04-03 17:52:32
End at: 2018-04-03 17:53:02
Local clock offset: 0.311 ms
Remote clock offset: -3.274 ms

# Below is generated by plot.py at 2018-04-04 02:28:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.86 Mbit/s
95th percentile per-packet one-way delay: 39.046 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 22.35 Mbit/s
95th percentile per-packet one-way delay: 38.951 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 19.17 Mbit/s
95th percentile per-packet one-way delay: 39.072 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 17.43 Mbit/s
95th percentile per-packet one-way delay: 39.218 ms
Loss rate: 1.33%
```

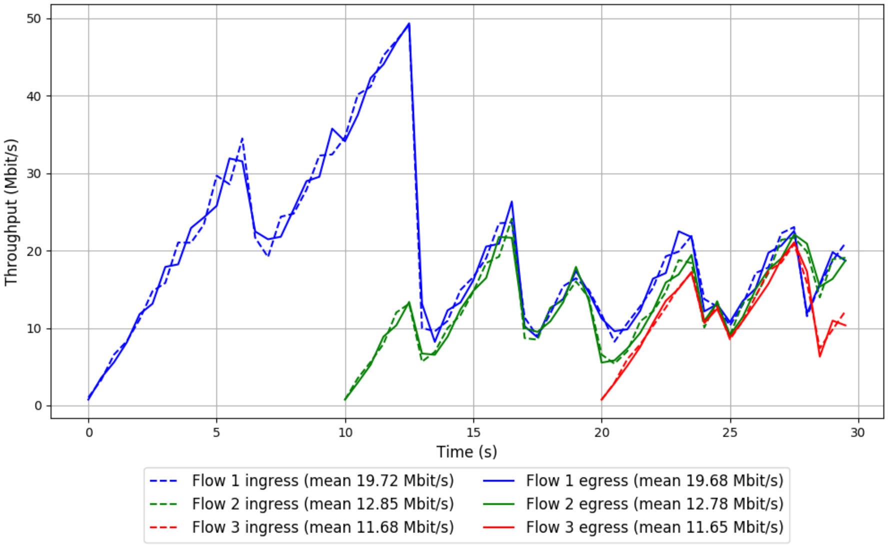
Run 3: Report of LEDBAT — Data Link

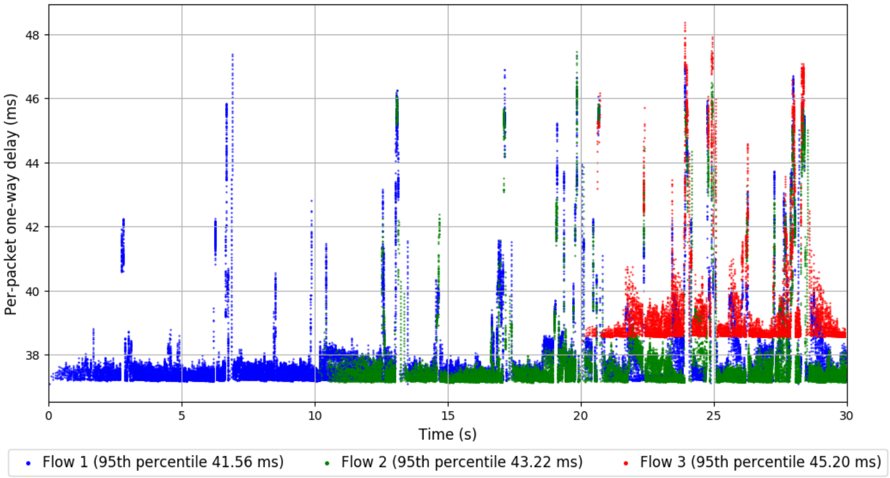




```
Run 4: Statistics of LEDBAT

Start at: 2018-04-03 18:17:18
End at: 2018-04-03 18:17:48
Local clock offset: 0.268 ms
Remote clock offset: -2.15 ms

# Below is generated by plot.py at 2018-04-04 02:28:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.02 Mbit/s
95th percentile per-packet one-way delay: 42.465 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 19.68 Mbit/s
95th percentile per-packet one-way delay: 41.565 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 12.78 Mbit/s
95th percentile per-packet one-way delay: 43.218 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 11.65 Mbit/s
95th percentile per-packet one-way delay: 45.198 ms
Loss rate: 0.96%
```

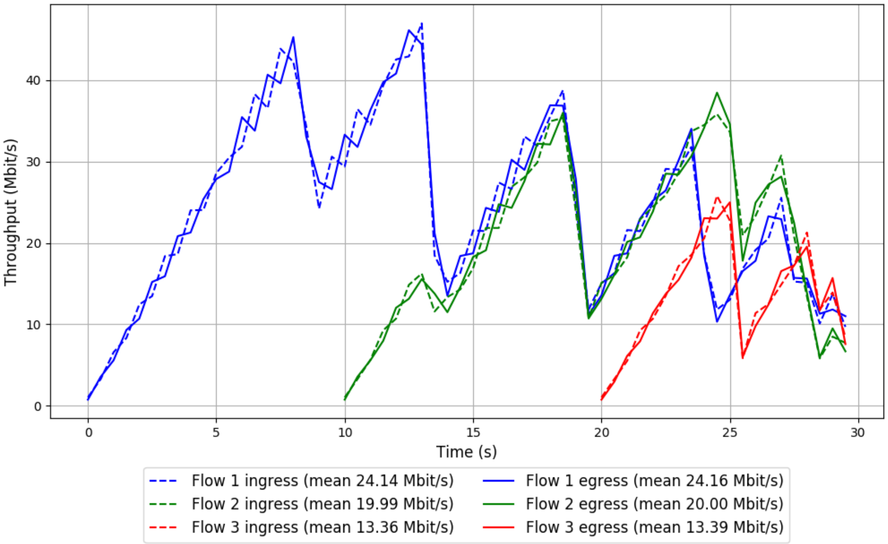
Run 4: Report of LEDBAT — Data Link

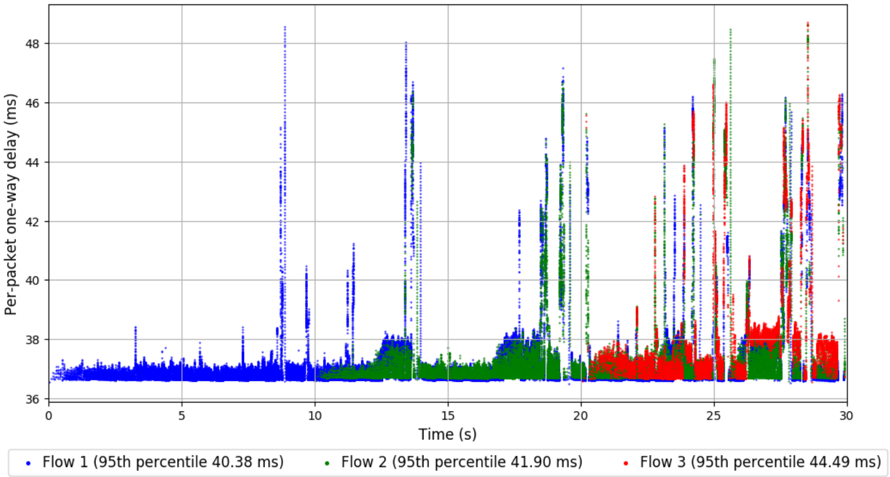




```
Run 5: Statistics of LEDBAT

Start at: 2018-04-03 18:42:45
End at: 2018-04-03 18:43:15
Local clock offset: -0.007 ms
Remote clock offset: -5.316 ms

# Below is generated by plot.py at 2018-04-04 02:28:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.85 Mbit/s
95th percentile per-packet one-way delay: 41.700 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 24.16 Mbit/s
95th percentile per-packet one-way delay: 40.383 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 20.00 Mbit/s
95th percentile per-packet one-way delay: 41.902 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 13.39 Mbit/s
95th percentile per-packet one-way delay: 44.492 ms
Loss rate: 0.49%
```

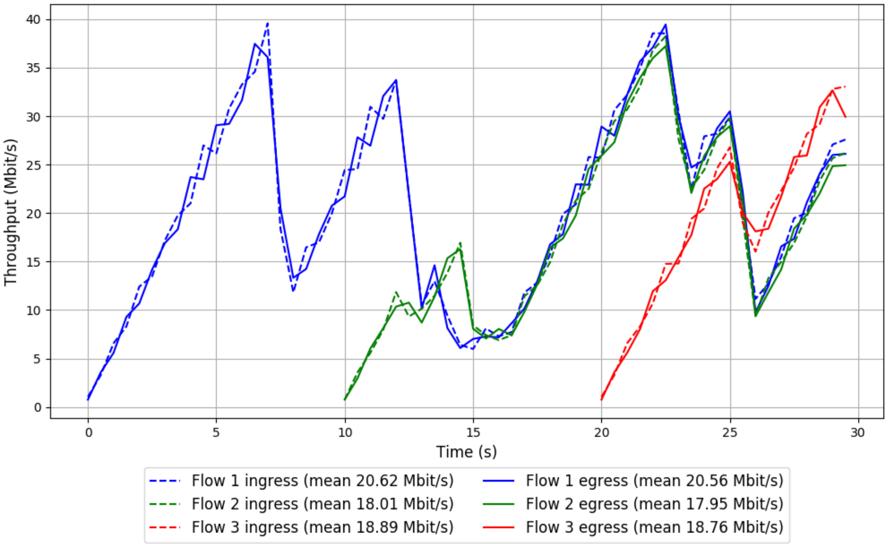
Run 5: Report of LEDBAT — Data Link

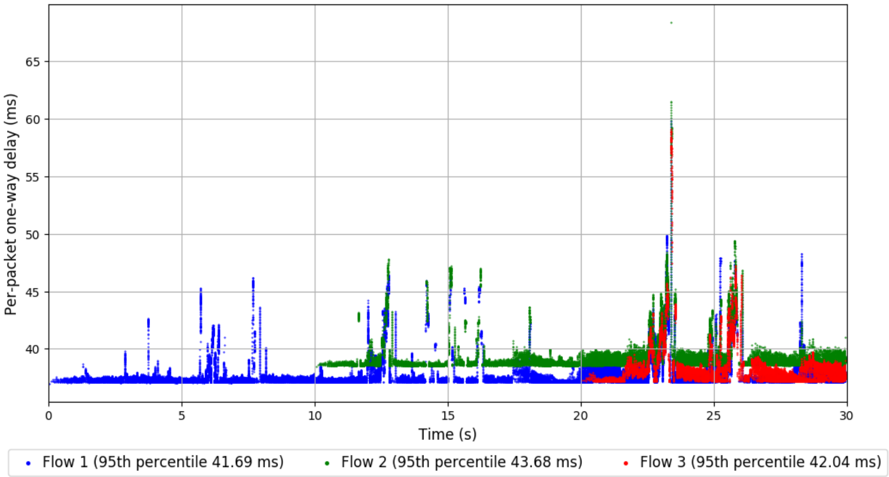




```
Run 6: Statistics of LEDBAT

Start at: 2018-04-03 19:07:55
End at: 2018-04-03 19:08:25
Local clock offset: -0.209 ms
Remote clock offset: -3.516 ms

# Below is generated by plot.py at 2018-04-04 02:28:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.70 Mbit/s
95th percentile per-packet one-way delay: 42.496 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 20.56 Mbit/s
95th percentile per-packet one-way delay: 41.691 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 17.95 Mbit/s
95th percentile per-packet one-way delay: 43.679 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 18.76 Mbit/s
95th percentile per-packet one-way delay: 42.039 ms
Loss rate: 1.34%
```

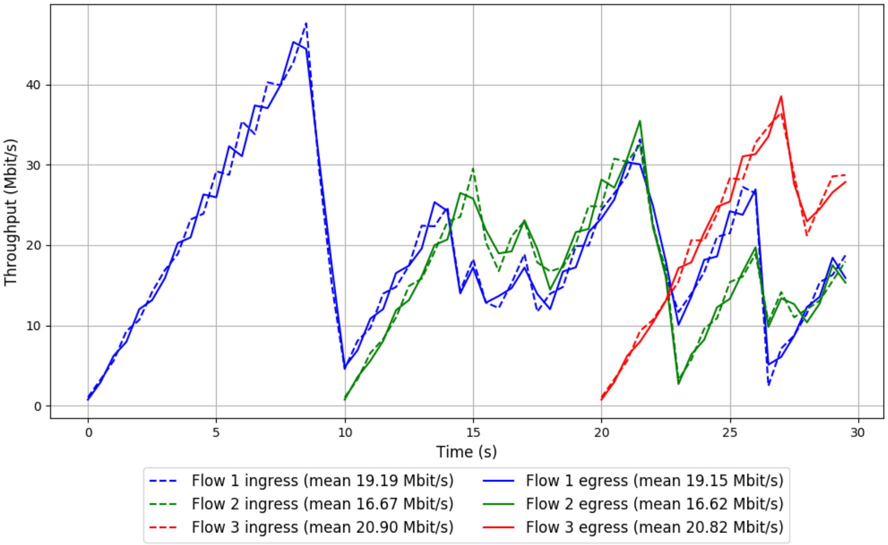
Run 6: Report of LEDBAT — Data Link

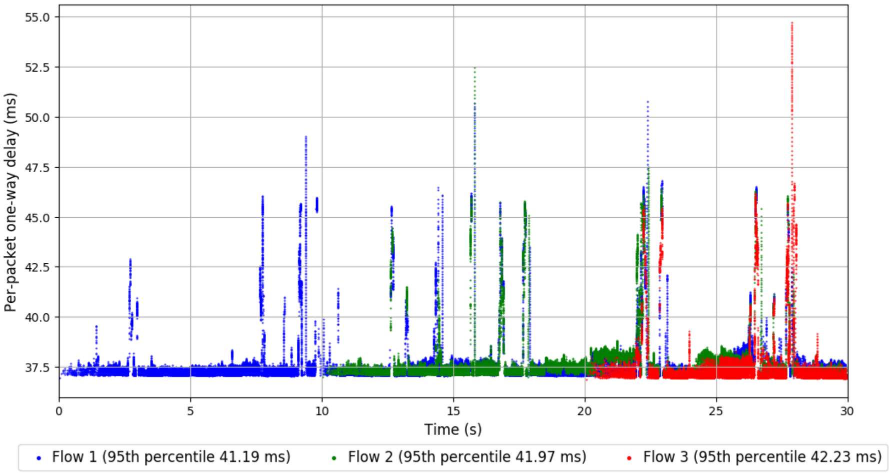




```
Run 7: Statistics of LEDBAT

Start at: 2018-04-03 19:33:18
End at: 2018-04-03 19:33:48
Local clock offset: -0.393 ms
Remote clock offset: -2.984 ms

# Below is generated by plot.py at 2018-04-04 02:28:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.06 Mbit/s
95th percentile per-packet one-way delay: 41.520 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 19.15 Mbit/s
95th percentile per-packet one-way delay: 41.193 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 16.62 Mbit/s
95th percentile per-packet one-way delay: 41.972 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 20.82 Mbit/s
95th percentile per-packet one-way delay: 42.229 ms
Loss rate: 1.03%
```

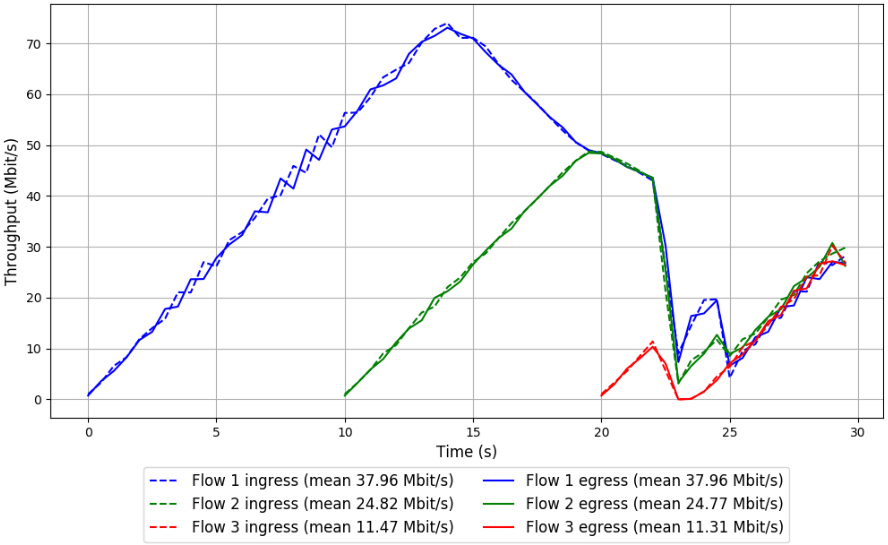
Run 7: Report of LEDBAT — Data Link

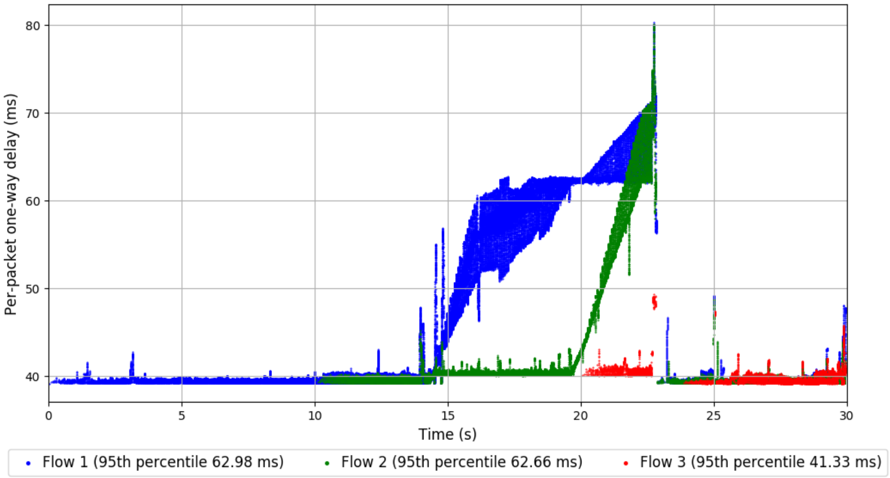




```
Run 8: Statistics of LEDBAT

Start at: 2018-04-03 19:58:15
End at: 2018-04-03 19:58:45
Local clock offset: 0.062 ms
Remote clock offset: -5.347 ms

# Below is generated by plot.py at 2018-04-04 02:29:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.16 Mbit/s
95th percentile per-packet one-way delay: 62.657 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 37.96 Mbit/s
95th percentile per-packet one-way delay: 62.983 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 24.77 Mbit/s
95th percentile per-packet one-way delay: 62.661 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 11.31 Mbit/s
95th percentile per-packet one-way delay: 41.334 ms
Loss rate: 2.00%
```

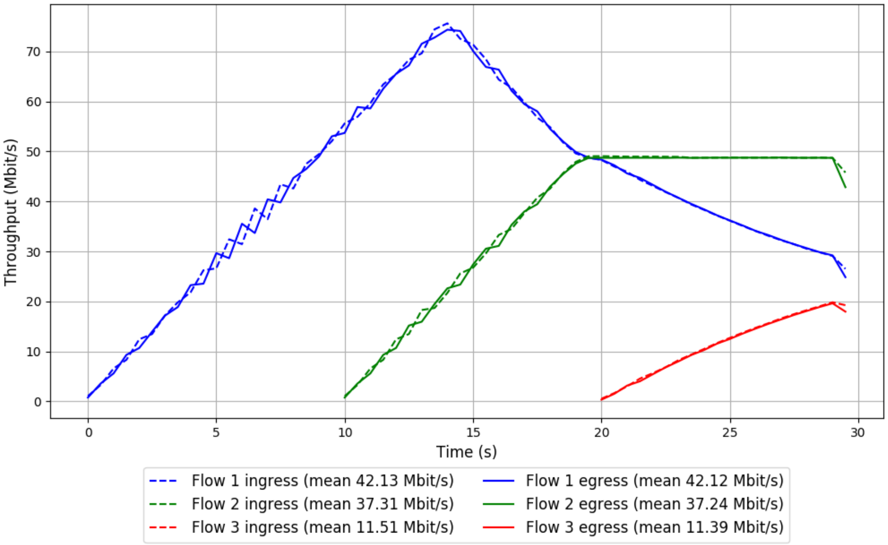
Run 8: Report of LEDBAT — Data Link

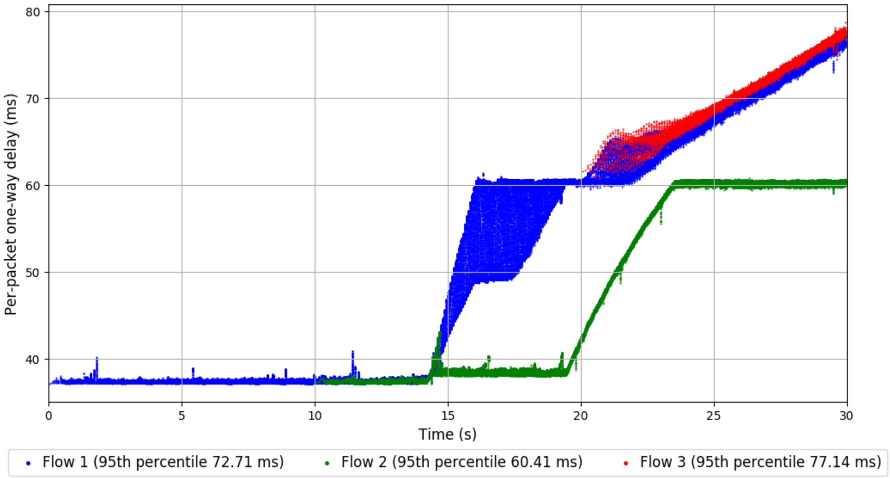




```
Run 9: Statistics of LEDBAT

Start at: 2018-04-03 20:23:12
End at: 2018-04-03 20:23:42
Local clock offset: 0.786 ms
Remote clock offset: -1.595 ms

# Below is generated by plot.py at 2018-04-04 02:29:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.65 Mbit/s
95th percentile per-packet one-way delay: 72.955 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 42.12 Mbit/s
95th percentile per-packet one-way delay: 72.712 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 37.24 Mbit/s
95th percentile per-packet one-way delay: 60.407 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 11.39 Mbit/s
95th percentile per-packet one-way delay: 77.138 ms
Loss rate: 1.94%
```

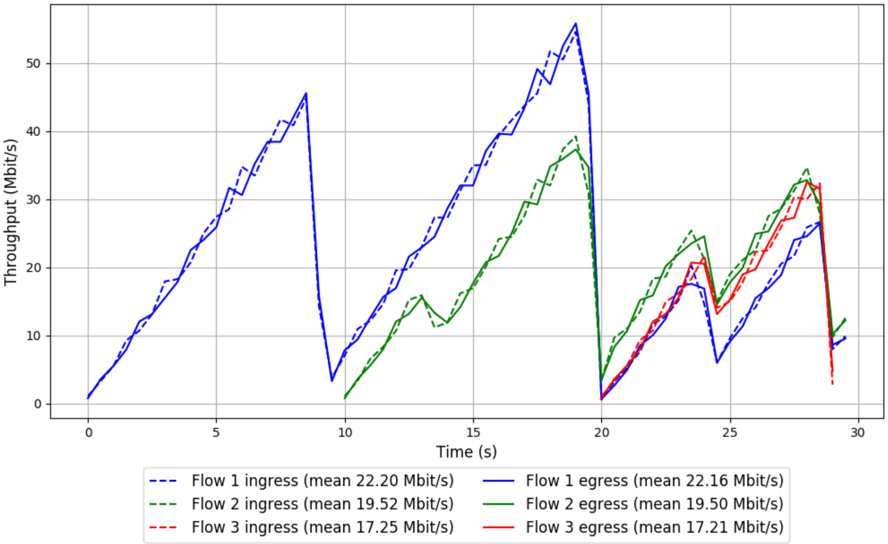
Run 9: Report of LEDBAT — Data Link

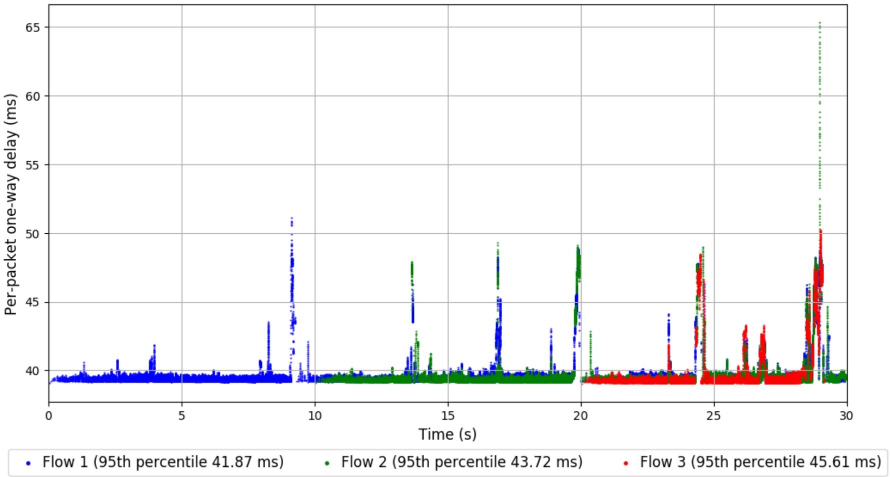




```
Run 10: Statistics of LEDBAT

Start at: 2018-04-03 20:48:18
End at: 2018-04-03 20:48:48
Local clock offset: 0.595 ms
Remote clock offset: -4.02 ms

# Below is generated by plot.py at 2018-04-04 02:29:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.37 Mbit/s
95th percentile per-packet one-way delay: 43.271 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 22.16 Mbit/s
95th percentile per-packet one-way delay: 41.872 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 19.50 Mbit/s
95th percentile per-packet one-way delay: 43.724 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 17.21 Mbit/s
95th percentile per-packet one-way delay: 45.614 ms
Loss rate: 0.19%
```

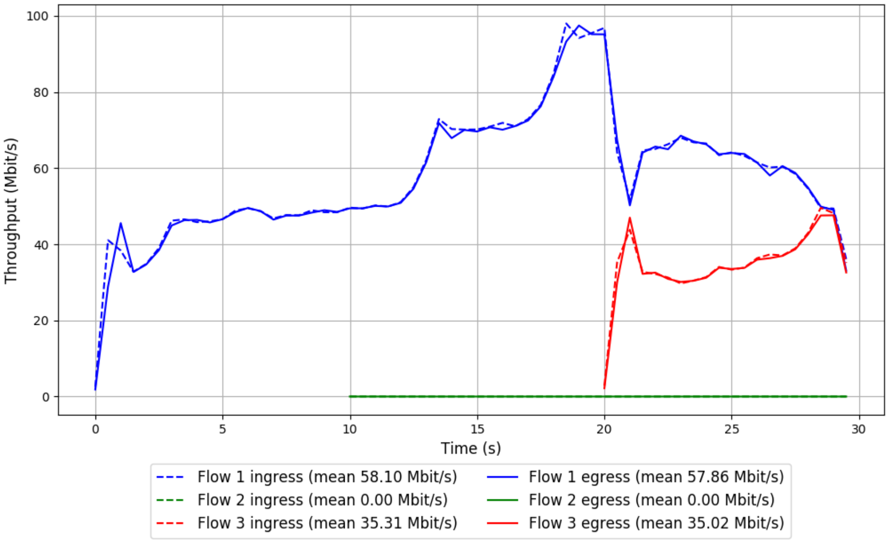
Run 10: Report of LEDBAT — Data Link

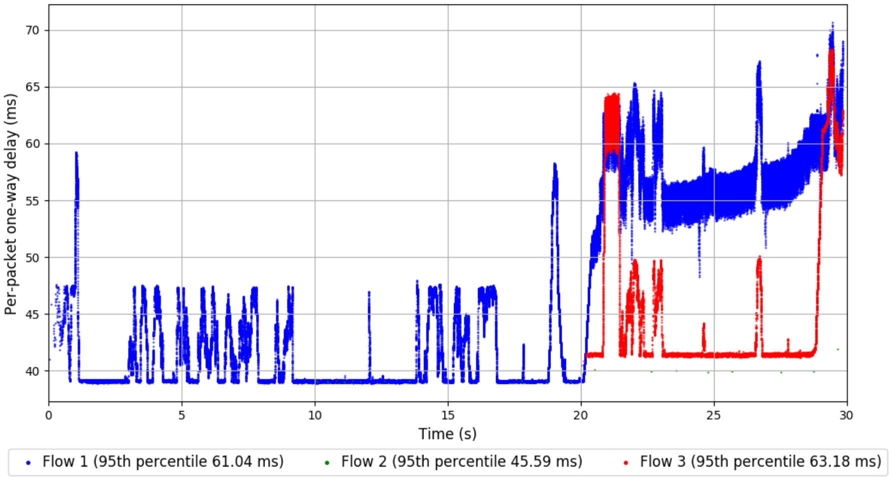




```
Run 1: Statistics of PCC

Start at: 2018-04-03 17:16:21
End at: 2018-04-03 17:16:51
Local clock offset: 0.312 ms
Remote clock offset: -5.086 ms

# Below is generated by plot.py at 2018-04-04 02:29:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.37 Mbit/s
95th percentile per-packet one-way delay: 61.517 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 57.86 Mbit/s
95th percentile per-packet one-way delay: 61.043 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 45.593 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.02 Mbit/s
95th percentile per-packet one-way delay: 63.179 ms
Loss rate: 1.49%
```

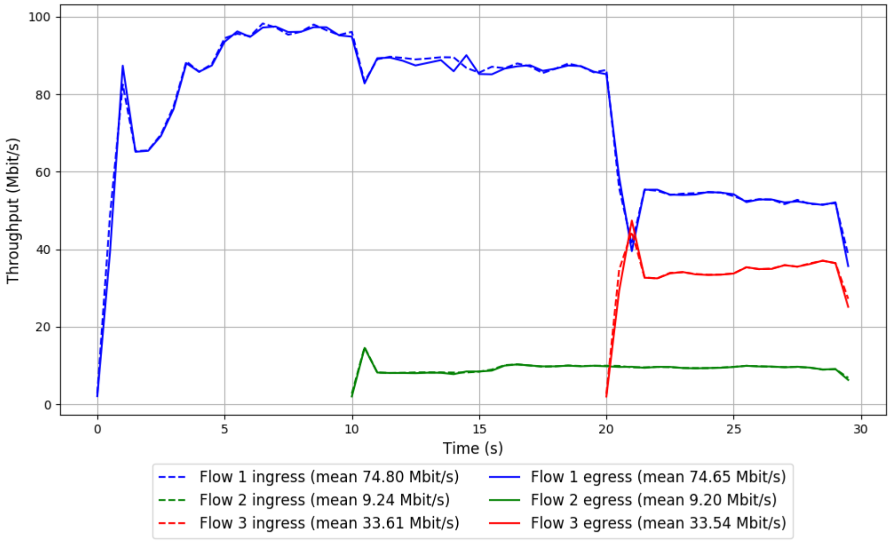
Run 1: Report of PCC — Data Link

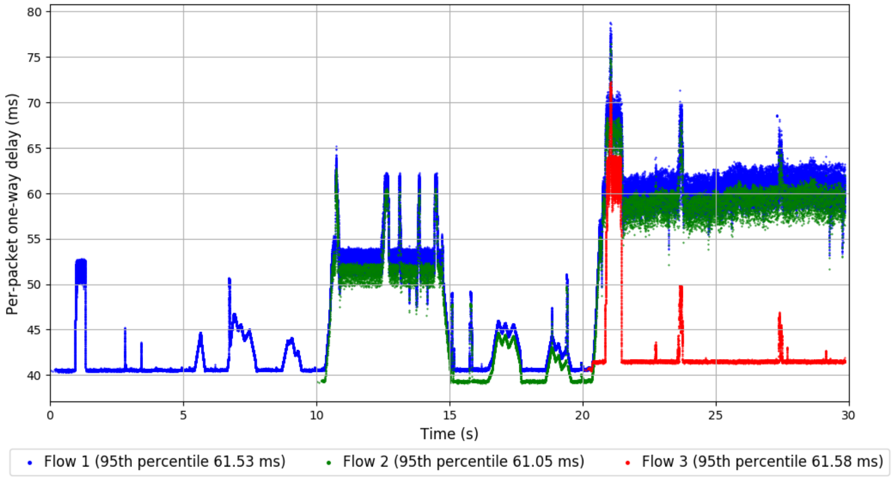




```
Run 2: Statistics of PCC

Start at: 2018-04-03 17:41:29
End at: 2018-04-03 17:41:59
Local clock offset: 0.509 ms
Remote clock offset: -6.687 ms

# Below is generated by plot.py at 2018-04-04 02:29:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.78 Mbit/s
95th percentile per-packet one-way delay: 61.526 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 74.65 Mbit/s
95th percentile per-packet one-way delay: 61.535 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 9.20 Mbit/s
95th percentile per-packet one-way delay: 61.045 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 33.54 Mbit/s
95th percentile per-packet one-way delay: 61.575 ms
Loss rate: 0.89%
```

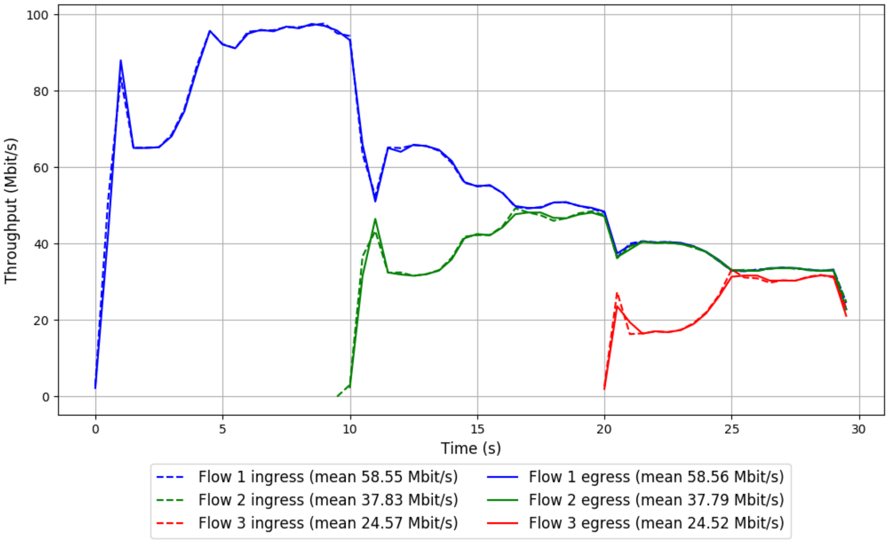
Run 2: Report of PCC — Data Link

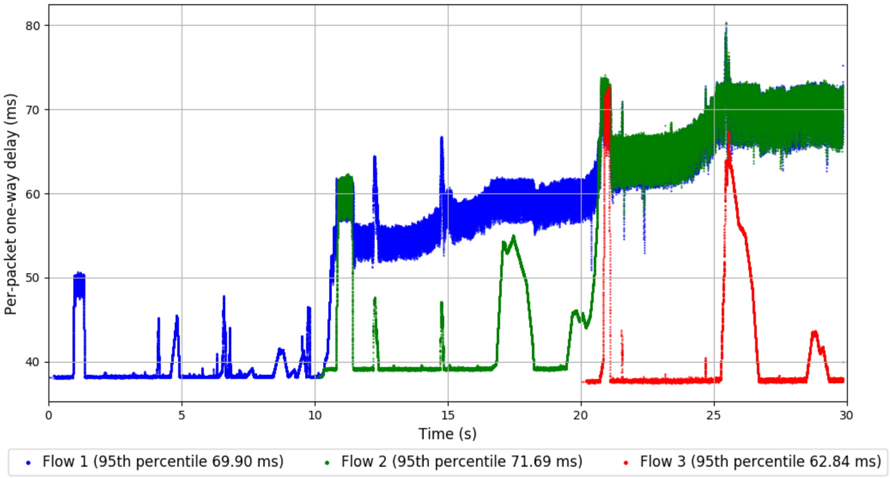




```
Run 3: Statistics of PCC

Start at: 2018-04-03 18:06:19
End at: 2018-04-03 18:06:49
Local clock offset: 0.256 ms
Remote clock offset: -1.981 ms

# Below is generated by plot.py at 2018-04-04 02:29:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.74 Mbit/s
95th percentile per-packet one-way delay: 70.664 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 58.56 Mbit/s
95th percentile per-packet one-way delay: 69.903 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 37.79 Mbit/s
95th percentile per-packet one-way delay: 71.687 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 24.52 Mbit/s
95th percentile per-packet one-way delay: 62.841 ms
Loss rate: 0.88%
```

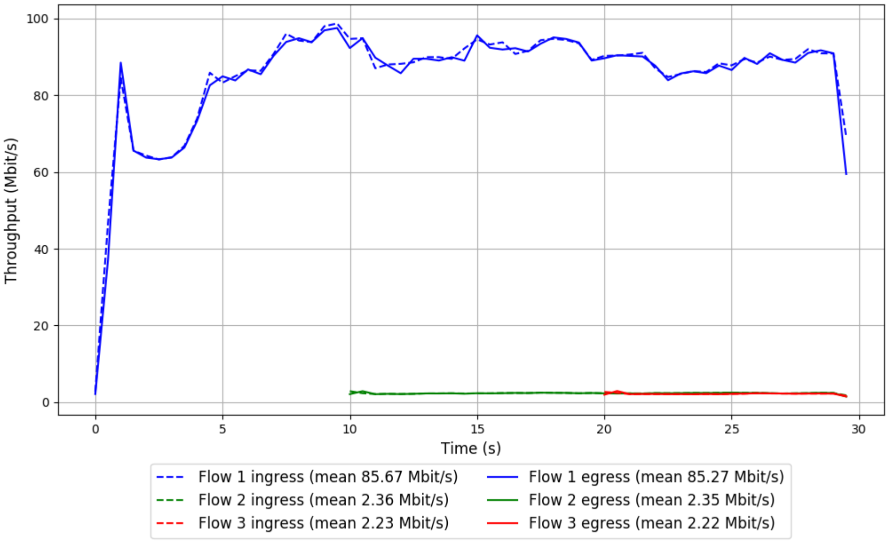
Run 3: Report of PCC — Data Link

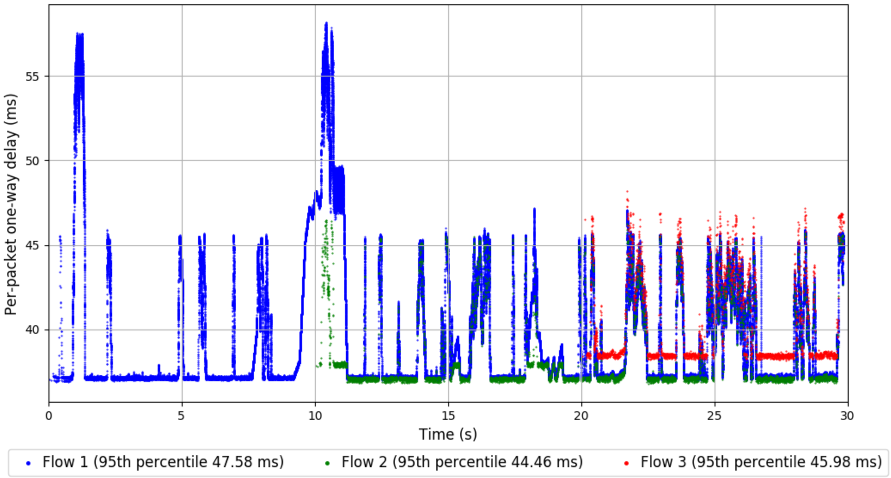




```
Run 4: Statistics of PCC

Start at: 2018-04-03 18:31:29
End at: 2018-04-03 18:31:59
Local clock offset: 0.087 ms
Remote clock offset: -4.811 ms

# Below is generated by plot.py at 2018-04-04 02:29:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.56 Mbit/s
95th percentile per-packet one-way delay: 47.461 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 85.27 Mbit/s
95th percentile per-packet one-way delay: 47.575 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 44.463 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 45.984 ms
Loss rate: 1.02%
```

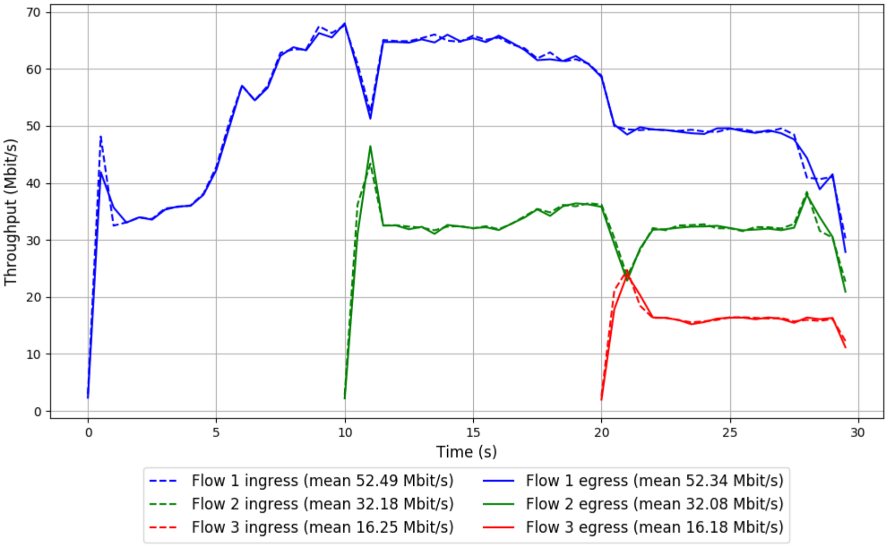
Run 4: Report of PCC — Data Link

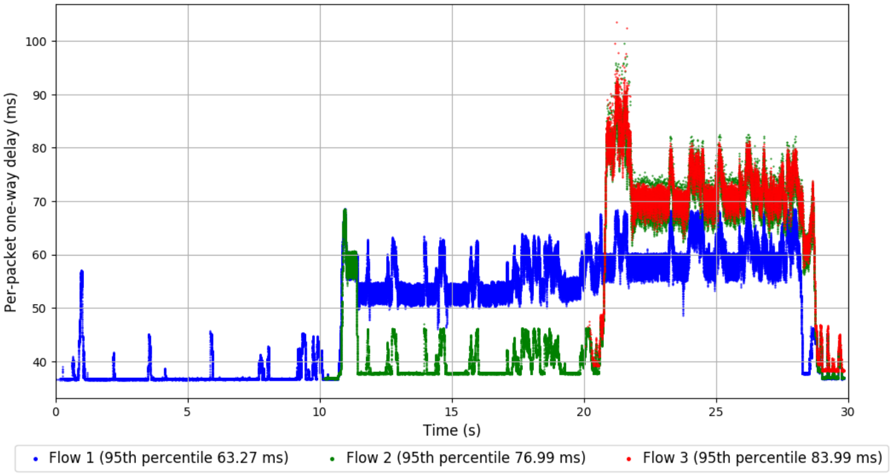




```
Run 5: Statistics of PCC

Start at: 2018-04-03 18:56:53
End at: 2018-04-03 18:57:23
Local clock offset: -0.095 ms
Remote clock offset: -4.662 ms

# Below is generated by plot.py at 2018-04-04 02:29:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.96 Mbit/s
95th percentile per-packet one-way delay: 73.443 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 52.34 Mbit/s
95th percentile per-packet one-way delay: 63.266 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 32.08 Mbit/s
95th percentile per-packet one-way delay: 76.994 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 16.18 Mbit/s
95th percentile per-packet one-way delay: 83.987 ms
Loss rate: 1.20%
```

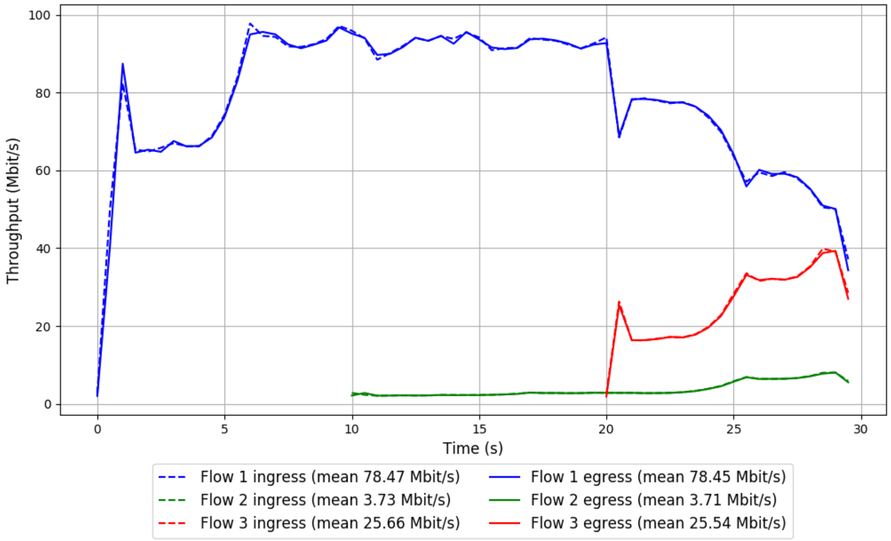
Run 5: Report of PCC — Data Link

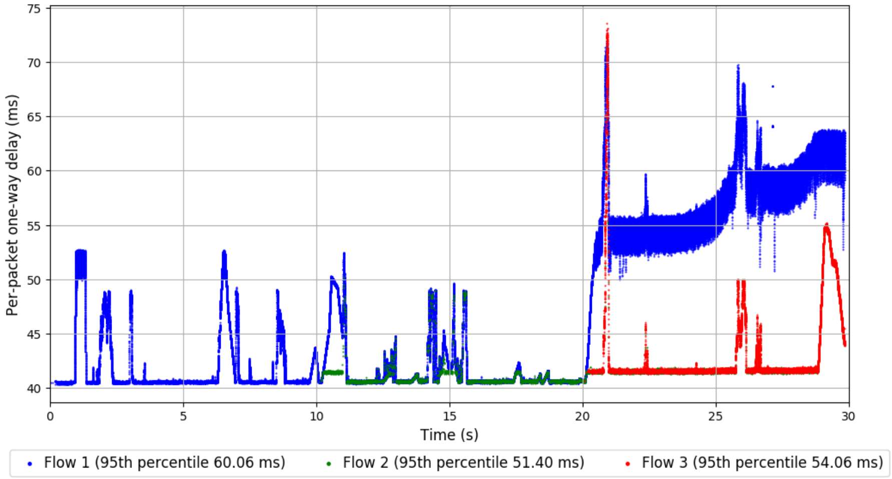




```
Run 6: Statistics of PCC

Start at: 2018-04-03 19:22:05
End at: 2018-04-03 19:22:35
Local clock offset: -0.497 ms
Remote clock offset: -5.127 ms

# Below is generated by plot.py at 2018-04-04 02:30:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.30 Mbit/s
95th percentile per-packet one-way delay: 59.830 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 78.45 Mbit/s
95th percentile per-packet one-way delay: 60.061 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 51.398 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 25.54 Mbit/s
95th percentile per-packet one-way delay: 54.056 ms
Loss rate: 1.16%
```

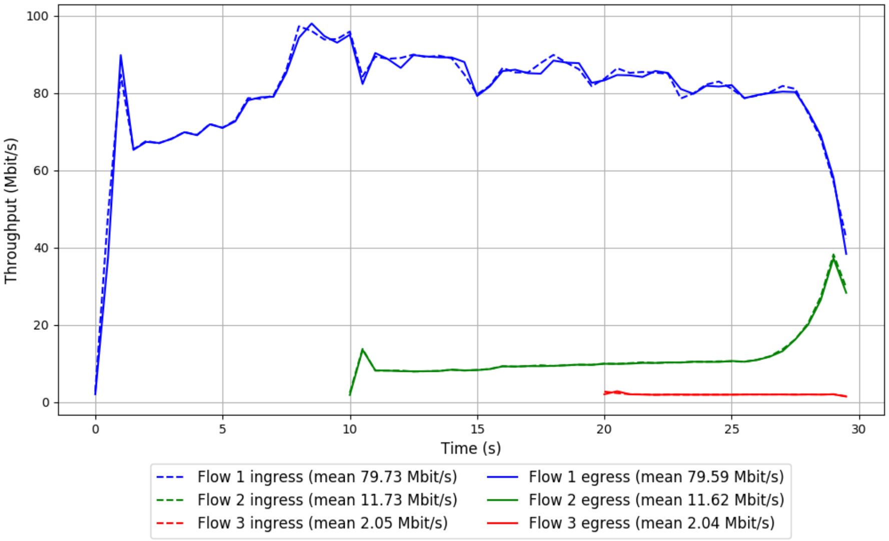
Run 6: Report of PCC — Data Link

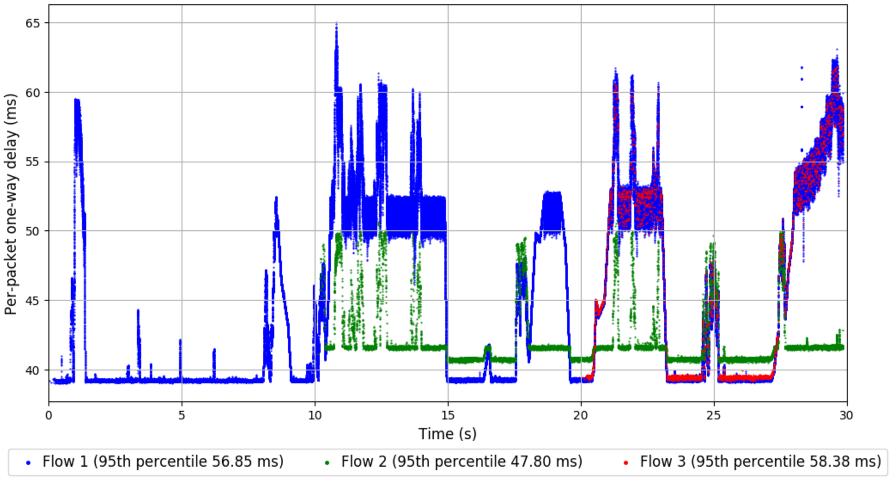




```
Run 7: Statistics of PCC

Start at: 2018-04-03 19:47:08
End at: 2018-04-03 19:47:38
Local clock offset: 0.042 ms
Remote clock offset: -5.418 ms

# Below is generated by plot.py at 2018-04-04 02:30:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.98 Mbit/s
95th percentile per-packet one-way delay: 56.499 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 79.59 Mbit/s
95th percentile per-packet one-way delay: 56.855 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 11.62 Mbit/s
95th percentile per-packet one-way delay: 47.799 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 58.379 ms
Loss rate: 1.05%
```

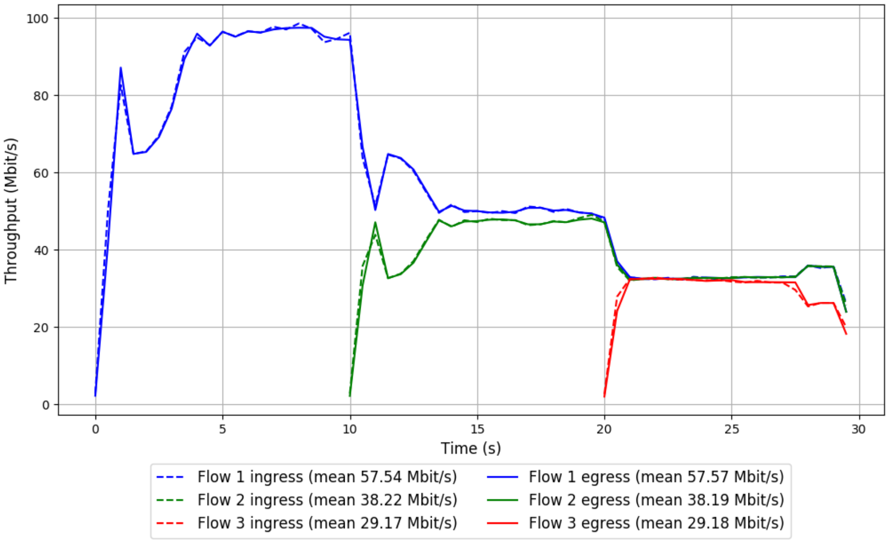
Run 7: Report of PCC — Data Link

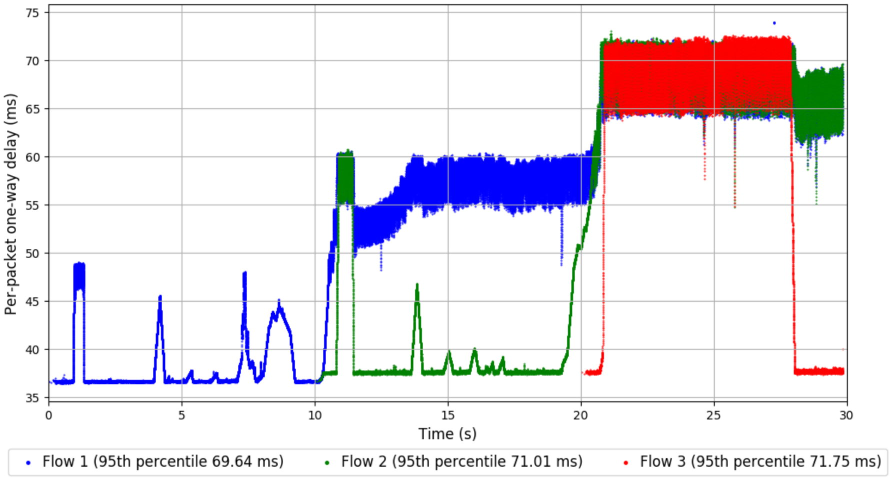




```
Run 8: Statistics of PCC

Start at: 2018-04-03 20:12:14
End at: 2018-04-03 20:12:44
Local clock offset: 0.559 ms
Remote clock offset: -1.758 ms

# Below is generated by plot.py at 2018-04-04 02:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.53 Mbit/s
95th percentile per-packet one-way delay: 70.792 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 57.57 Mbit/s
95th percentile per-packet one-way delay: 69.640 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 38.19 Mbit/s
95th percentile per-packet one-way delay: 71.007 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 29.18 Mbit/s
95th percentile per-packet one-way delay: 71.751 ms
Loss rate: 0.65%
```

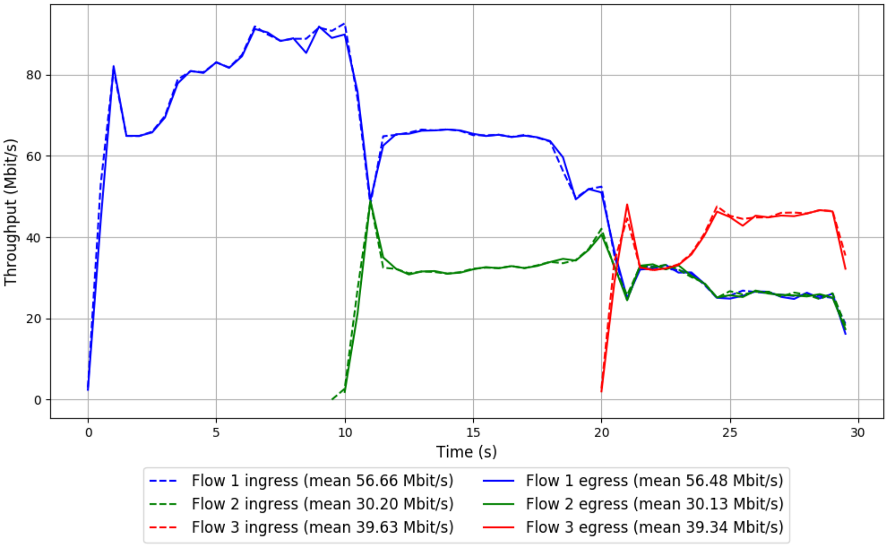
Run 8: Report of PCC — Data Link

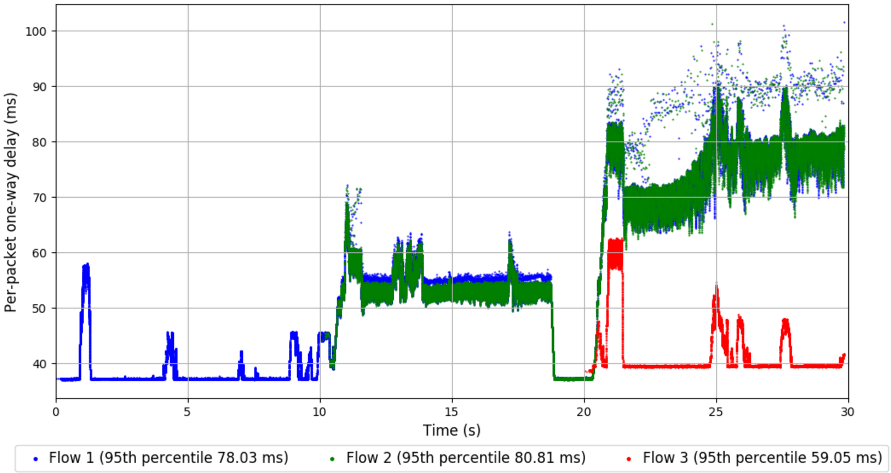




```
Run 9: Statistics of PCC

Start at: 2018-04-03 20:37:13
End at: 2018-04-03 20:37:43
Local clock offset: 0.938 ms
Remote clock offset: -1.401 ms

# Below is generated by plot.py at 2018-04-04 02:30:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.41 Mbit/s
95th percentile per-packet one-way delay: 78.779 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 56.48 Mbit/s
95th percentile per-packet one-way delay: 78.033 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 30.13 Mbit/s
95th percentile per-packet one-way delay: 80.805 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 39.34 Mbit/s
95th percentile per-packet one-way delay: 59.046 ms
Loss rate: 1.44%
```

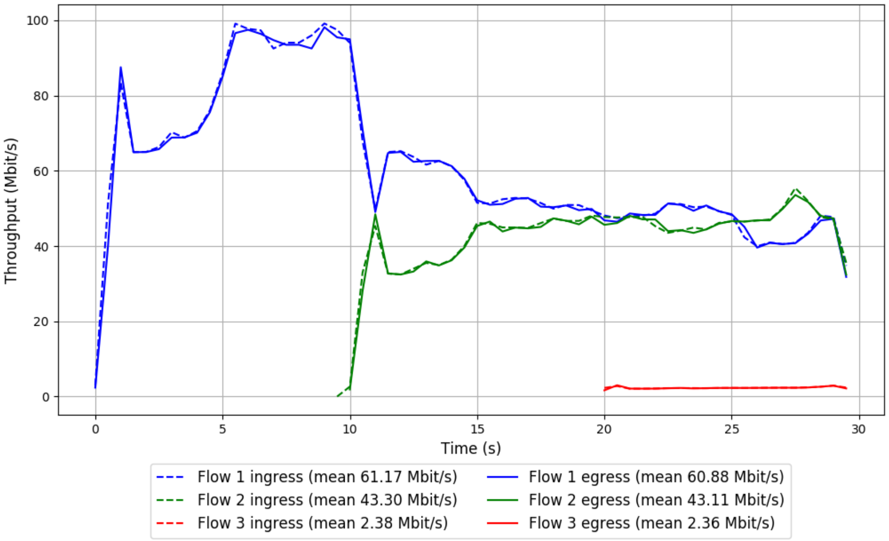
Run 9: Report of PCC — Data Link

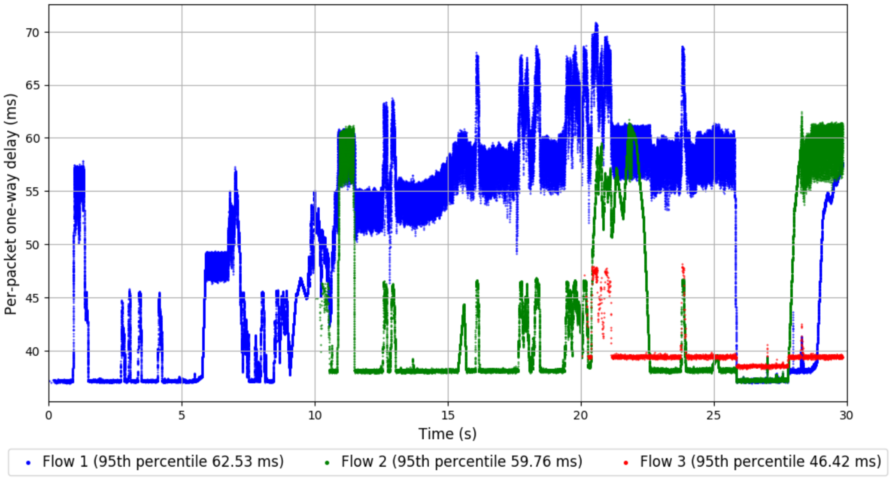




```
Run 10: Statistics of PCC

Start at: 2018-04-03 21:02:30
End at: 2018-04-03 21:03:00
Local clock offset: 0.708 ms
Remote clock offset: -2.381 ms

# Below is generated by plot.py at 2018-04-04 02:31:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.29 Mbit/s
95th percentile per-packet one-way delay: 60.757 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 60.88 Mbit/s
95th percentile per-packet one-way delay: 62.530 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 43.11 Mbit/s
95th percentile per-packet one-way delay: 59.760 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 46.425 ms
Loss rate: 1.59%
```

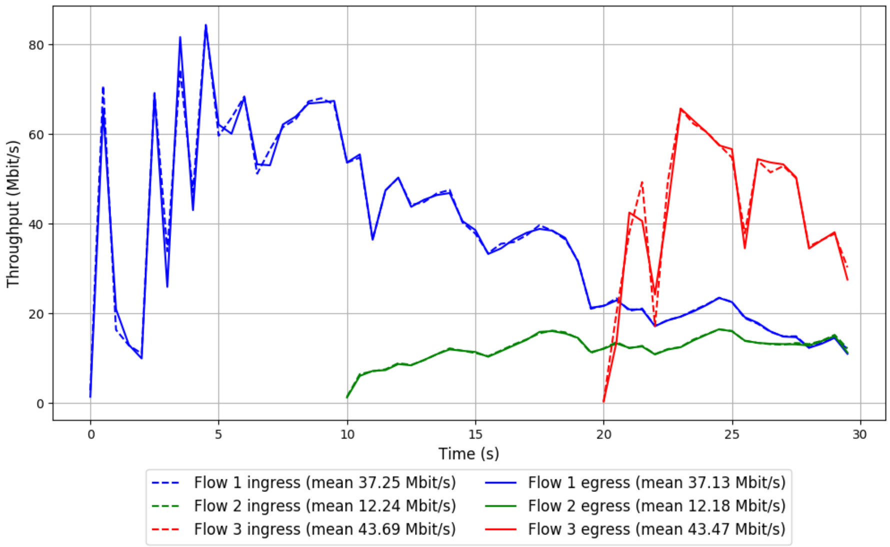
Run 10: Report of PCC — Data Link

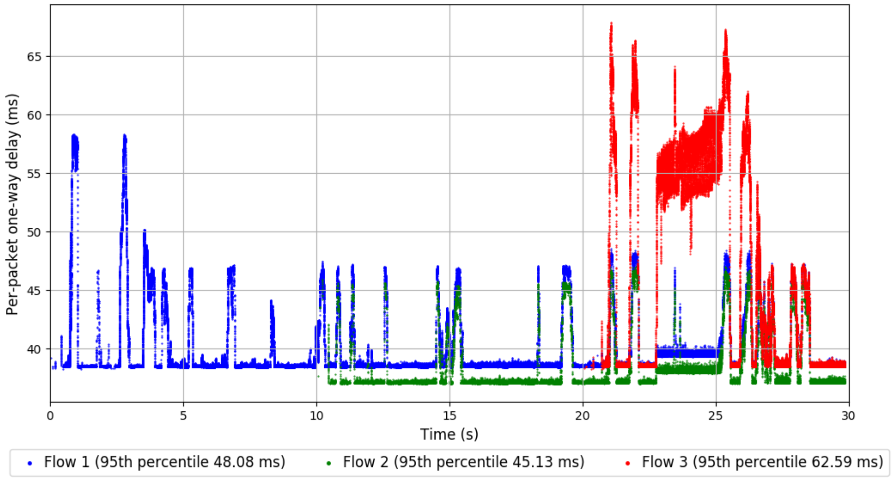




```
Run 1: Statistics of QUIC Cubic

Start at: 2018-04-03 17:03:16
End at: 2018-04-03 17:03:46
Local clock offset: 0.304 ms
Remote clock offset: -2.054 ms

# Below is generated by plot.py at 2018-04-04 02:31:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.48 Mbit/s
95th percentile per-packet one-way delay: 57.839 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 37.13 Mbit/s
95th percentile per-packet one-way delay: 48.075 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 12.18 Mbit/s
95th percentile per-packet one-way delay: 45.127 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 43.47 Mbit/s
95th percentile per-packet one-way delay: 62.591 ms
Loss rate: 1.19%
```

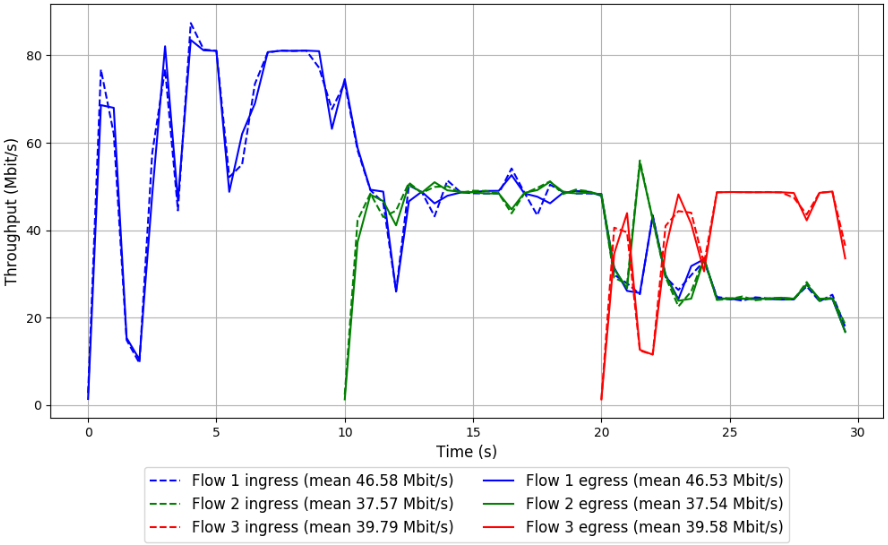
Run 1: Report of QUIC Cubic — Data Link

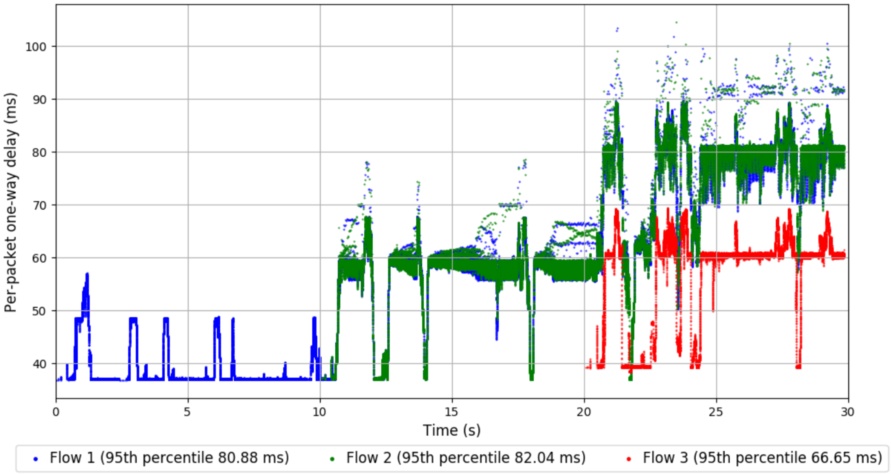




```
Run 2: Statistics of QUIC Cubic

Start at: 2018-04-03 17:28:57
End at: 2018-04-03 17:29:27
Local clock offset: 0.371 ms
Remote clock offset: -3.887 ms

# Below is generated by plot.py at 2018-04-04 02:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.44 Mbit/s
95th percentile per-packet one-way delay: 80.957 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 46.53 Mbit/s
95th percentile per-packet one-way delay: 80.875 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 37.54 Mbit/s
95th percentile per-packet one-way delay: 82.041 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 39.58 Mbit/s
95th percentile per-packet one-way delay: 66.654 ms
Loss rate: 1.30%
```

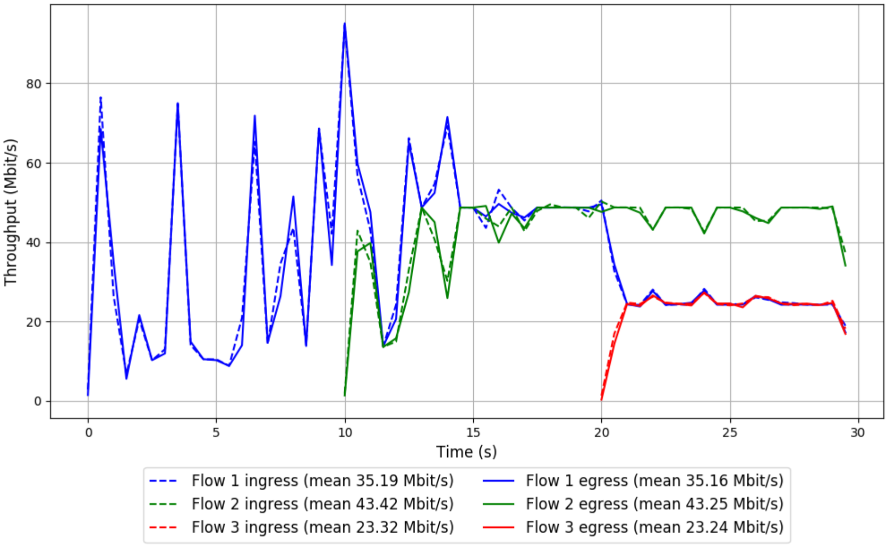
Run 2: Report of QUIC Cubic — Data Link

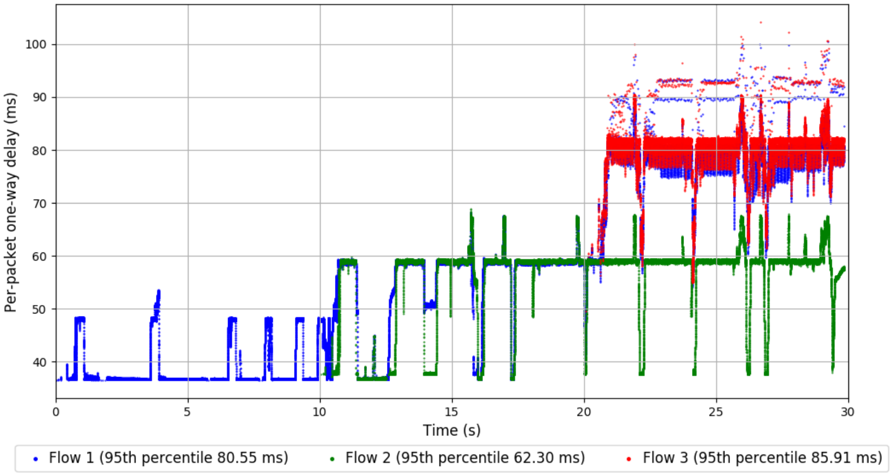




```
Run 3: Statistics of QUIC Cubic

Start at: 2018-04-03 17:53:53
End at: 2018-04-03 17:54:23
Local clock offset: 0.385 ms
Remote clock offset: -2.515 ms

# Below is generated by plot.py at 2018-04-04 02:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.48 Mbit/s
95th percentile per-packet one-way delay: 81.751 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 35.16 Mbit/s
95th percentile per-packet one-way delay: 80.545 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 43.25 Mbit/s
95th percentile per-packet one-way delay: 62.300 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 23.24 Mbit/s
95th percentile per-packet one-way delay: 85.914 ms
Loss rate: 1.34%
```

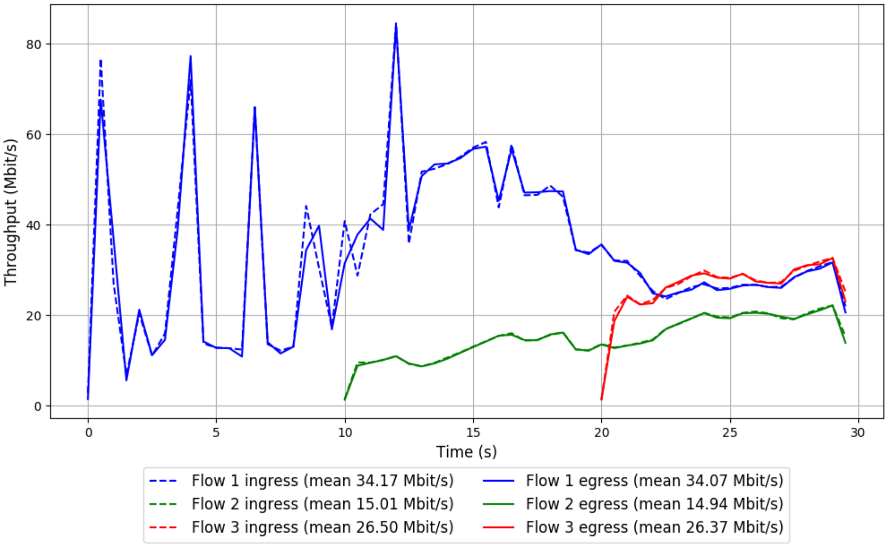
Run 3: Report of QUIC Cubic — Data Link

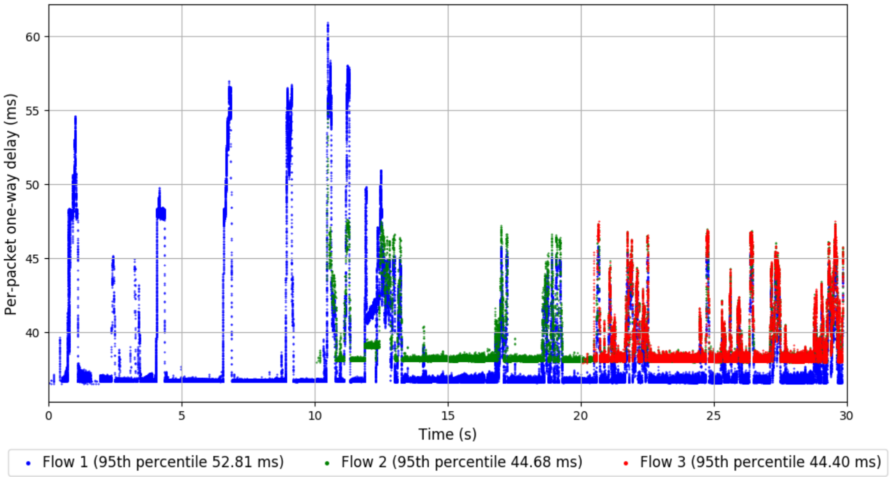




```
Run 4: Statistics of QUIC Cubic

Start at: 2018-04-03 18:18:38
End at: 2018-04-03 18:19:08
Local clock offset: 0.291 ms
Remote clock offset: -1.642 ms

# Below is generated by plot.py at 2018-04-04 02:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.64 Mbit/s
95th percentile per-packet one-way delay: 48.634 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 34.07 Mbit/s
95th percentile per-packet one-way delay: 52.814 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 14.94 Mbit/s
95th percentile per-packet one-way delay: 44.679 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 26.37 Mbit/s
95th percentile per-packet one-way delay: 44.402 ms
Loss rate: 1.20%
```

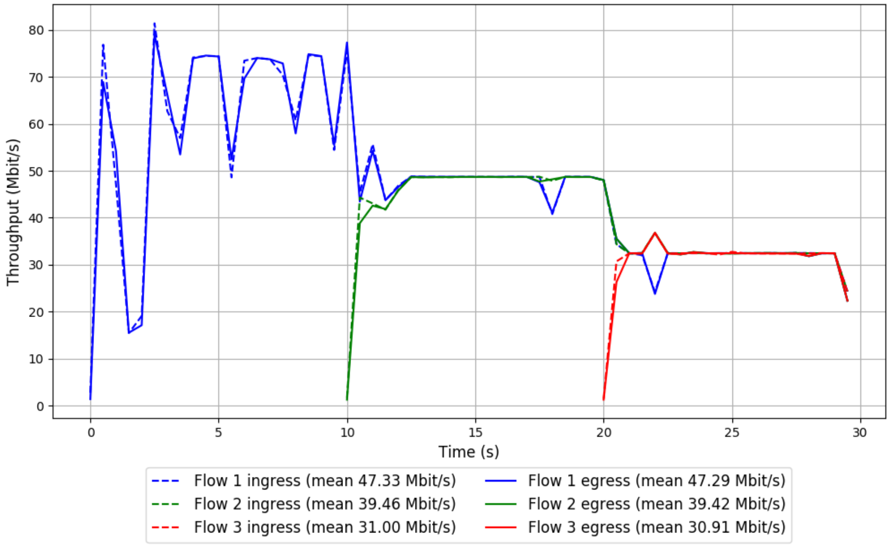
Run 4: Report of QUIC Cubic — Data Link

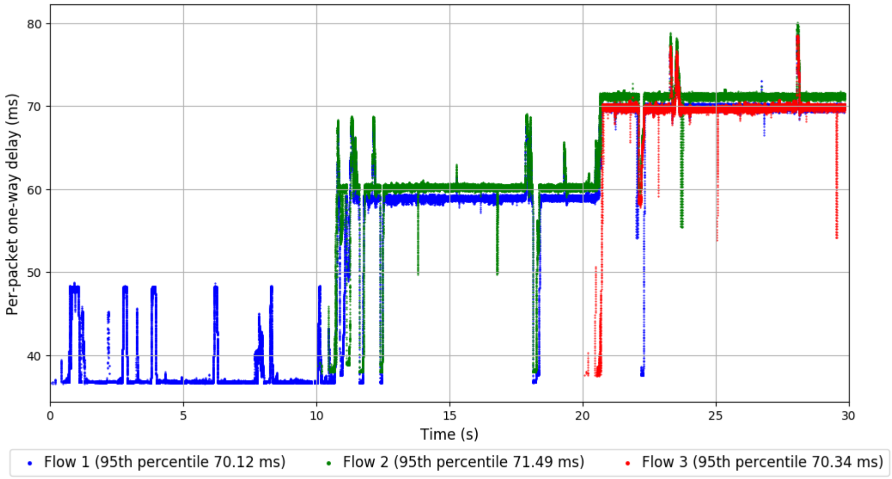




```
Run 5: Statistics of QUIC Cubic

Start at: 2018-04-03 18:44:07
End at: 2018-04-03 18:44:37
Local clock offset: -0.028 ms
Remote clock offset: -5.382 ms

# Below is generated by plot.py at 2018-04-04 02:32:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.62 Mbit/s
95th percentile per-packet one-way delay: 71.310 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 47.29 Mbit/s
95th percentile per-packet one-way delay: 70.125 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 39.42 Mbit/s
95th percentile per-packet one-way delay: 71.486 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 30.91 Mbit/s
95th percentile per-packet one-way delay: 70.342 ms
Loss rate: 1.15%
```

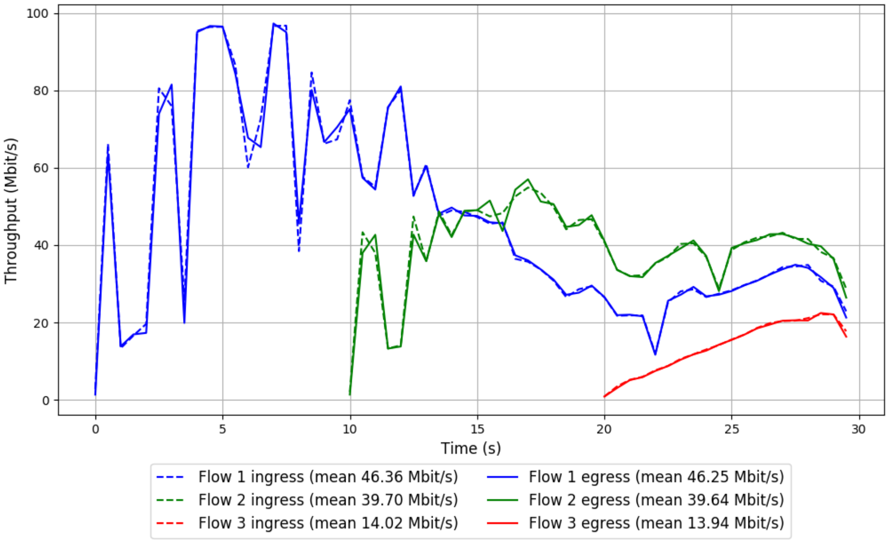
Run 5: Report of QUIC Cubic — Data Link

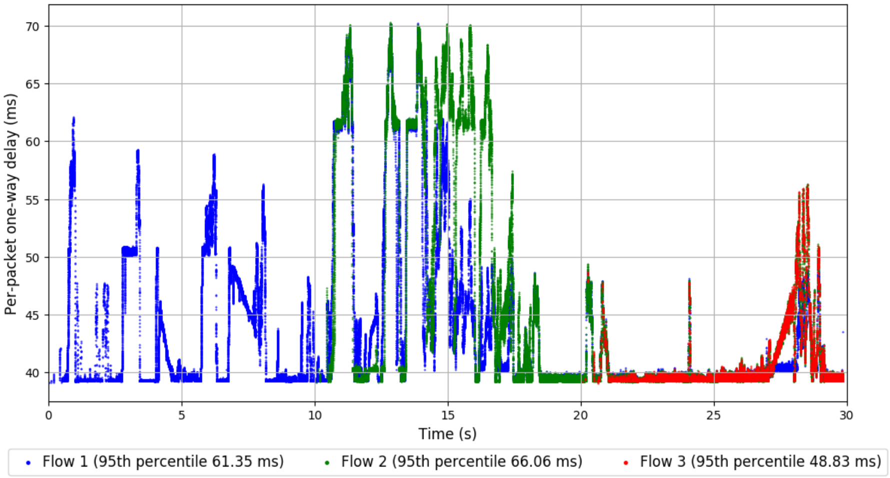




```
Run 6: Statistics of QUIC Cubic

Start at: 2018-04-03 19:09:17
End at: 2018-04-03 19:09:47
Local clock offset: -0.228 ms
Remote clock offset: -5.492 ms

# Below is generated by plot.py at 2018-04-04 02:32:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.14 Mbit/s
95th percentile per-packet one-way delay: 63.104 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 46.25 Mbit/s
95th percentile per-packet one-way delay: 61.353 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 39.64 Mbit/s
95th percentile per-packet one-way delay: 66.060 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 13.94 Mbit/s
95th percentile per-packet one-way delay: 48.825 ms
Loss rate: 1.22%
```

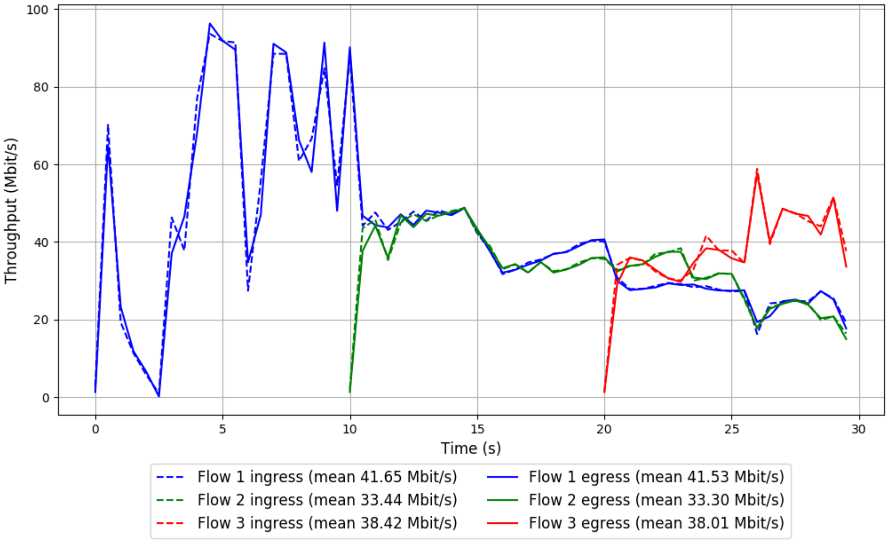
Run 6: Report of QUIC Cubic — Data Link

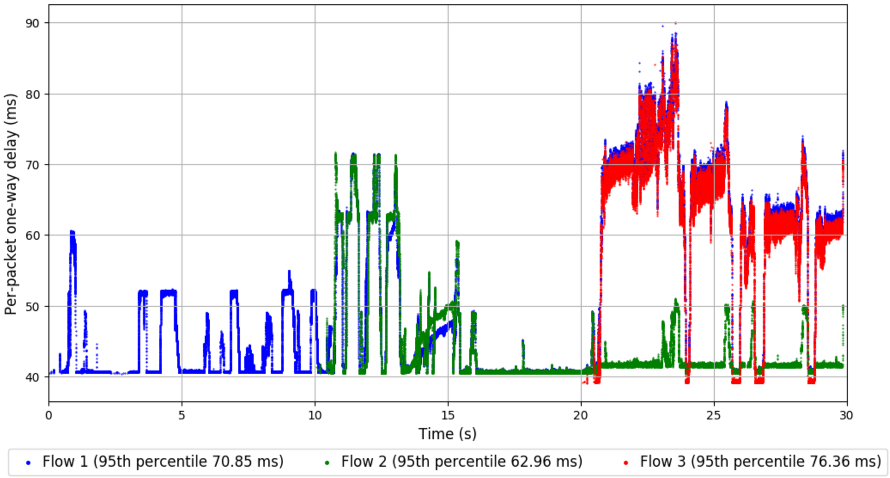




```
Run 7: Statistics of QUIC Cubic

Start at: 2018-04-03 19:34:39
End at: 2018-04-03 19:35:09
Local clock offset: -0.301 ms
Remote clock offset: -5.097 ms

# Below is generated by plot.py at 2018-04-04 02:32:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.11 Mbit/s
95th percentile per-packet one-way delay: 70.823 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 41.53 Mbit/s
95th percentile per-packet one-way delay: 70.849 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 33.30 Mbit/s
95th percentile per-packet one-way delay: 62.960 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 38.01 Mbit/s
95th percentile per-packet one-way delay: 76.365 ms
Loss rate: 1.79%
```

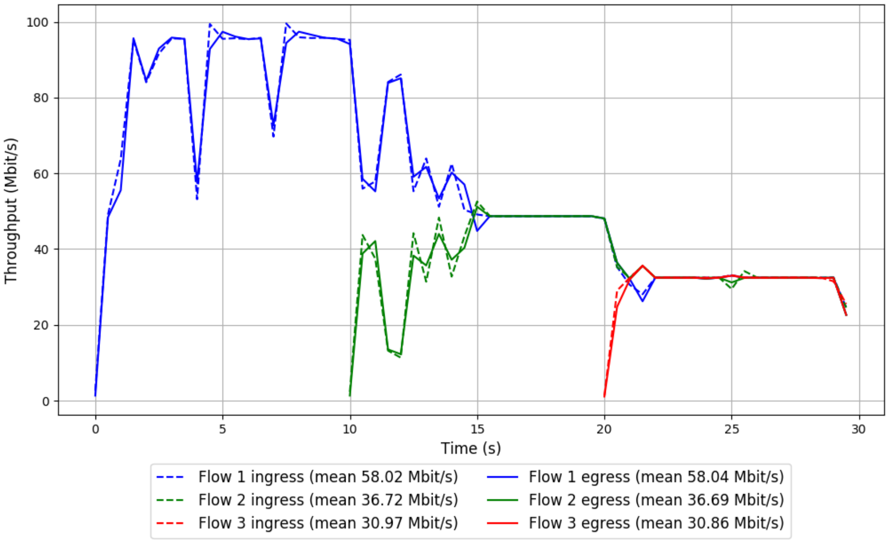
Run 7: Report of QUIC Cubic — Data Link

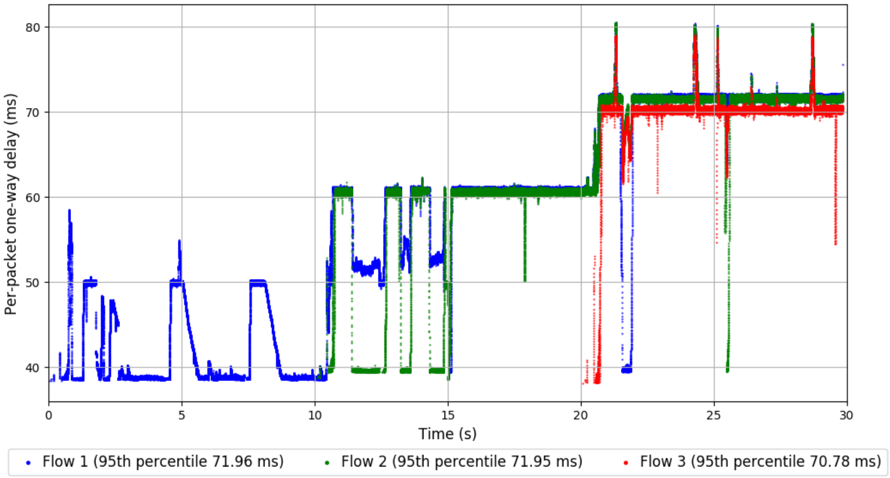




```
Run 8: Statistics of QUIC Cubic

Start at: 2018-04-03 19:59:37
End at: 2018-04-03 20:00:07
Local clock offset: 0.176 ms
Remote clock offset: -3.187 ms

# Below is generated by plot.py at 2018-04-04 02:32:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.53 Mbit/s
95th percentile per-packet one-way delay: 71.952 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 58.04 Mbit/s
95th percentile per-packet one-way delay: 71.964 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 36.69 Mbit/s
95th percentile per-packet one-way delay: 71.947 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 30.86 Mbit/s
95th percentile per-packet one-way delay: 70.780 ms
Loss rate: 1.20%
```

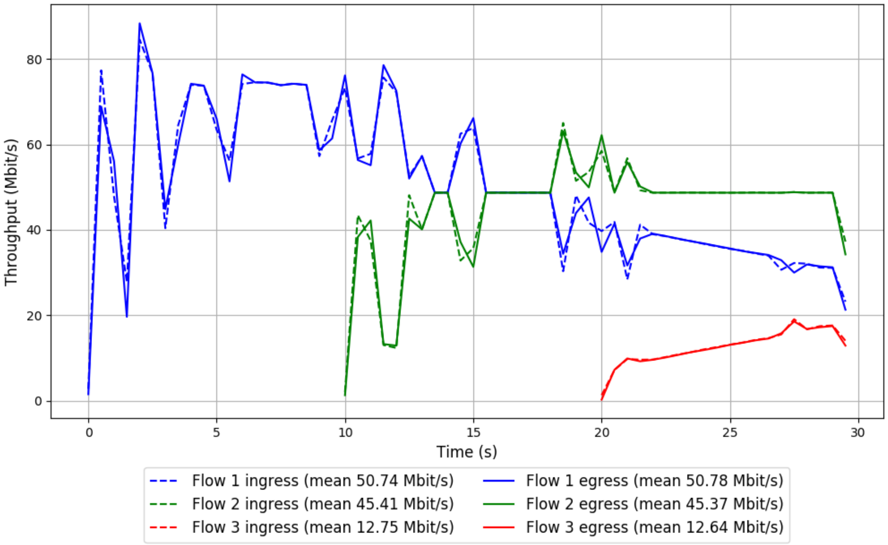
Run 8: Report of QUIC Cubic — Data Link

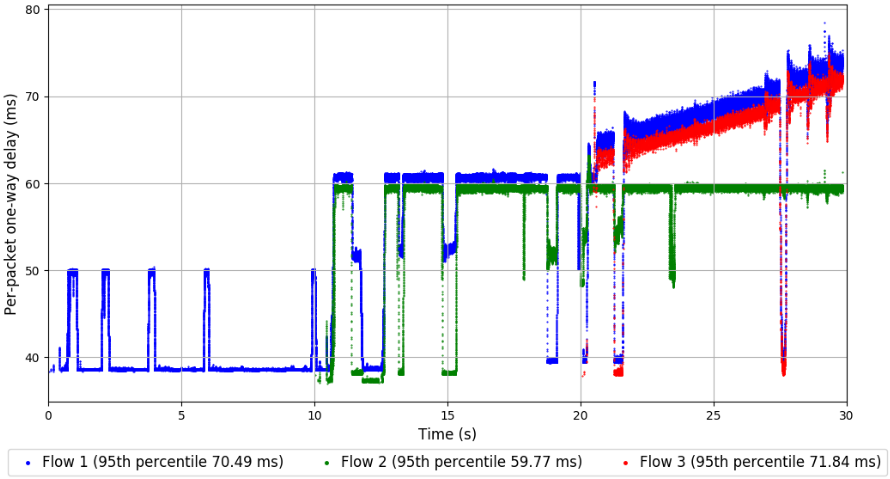




```
Run 9: Statistics of QUIC Cubic

Start at: 2018-04-03 20:24:35
End at: 2018-04-03 20:25:05
Local clock offset: 0.777 ms
Remote clock offset: -1.525 ms

# Below is generated by plot.py at 2018-04-04 02:32:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.05 Mbit/s
95th percentile per-packet one-way delay: 69.745 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 50.78 Mbit/s
95th percentile per-packet one-way delay: 70.491 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 45.37 Mbit/s
95th percentile per-packet one-way delay: 59.770 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 12.64 Mbit/s
95th percentile per-packet one-way delay: 71.841 ms
Loss rate: 1.50%
```

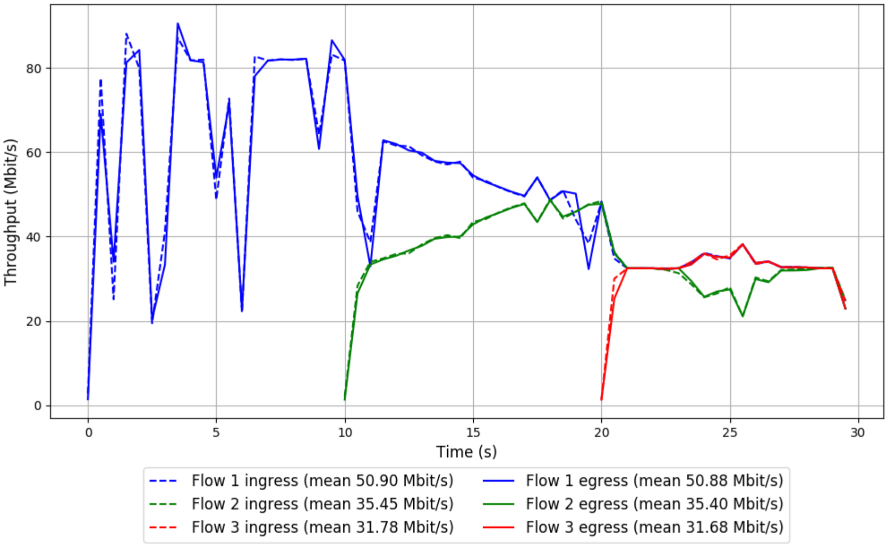
Run 9: Report of QUIC Cubic — Data Link

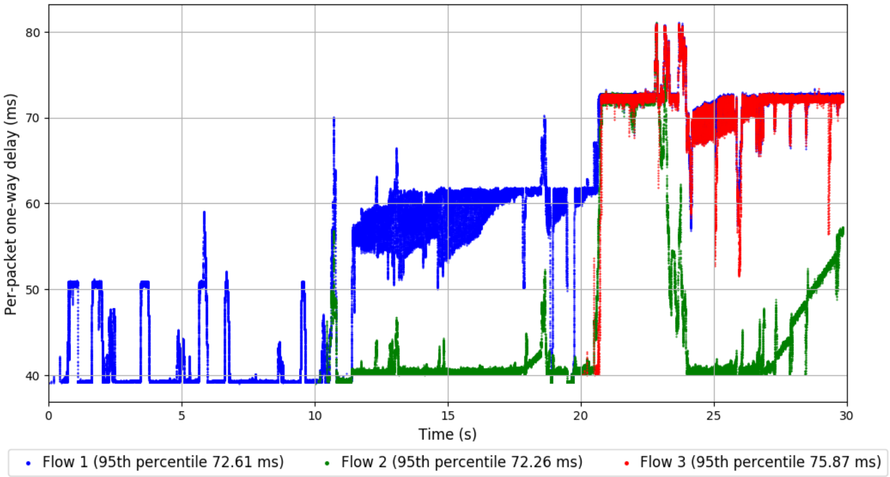




```
Run 10: Statistics of QUIC Cubic

Start at: 2018-04-03 20:49:39
End at: 2018-04-03 20:50:09
Local clock offset: 0.695 ms
Remote clock offset: -3.988 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.79 Mbit/s
95th percentile per-packet one-way delay: 72.595 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 50.88 Mbit/s
95th percentile per-packet one-way delay: 72.606 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 35.40 Mbit/s
95th percentile per-packet one-way delay: 72.259 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 31.68 Mbit/s
95th percentile per-packet one-way delay: 75.872 ms
Loss rate: 1.13%
```

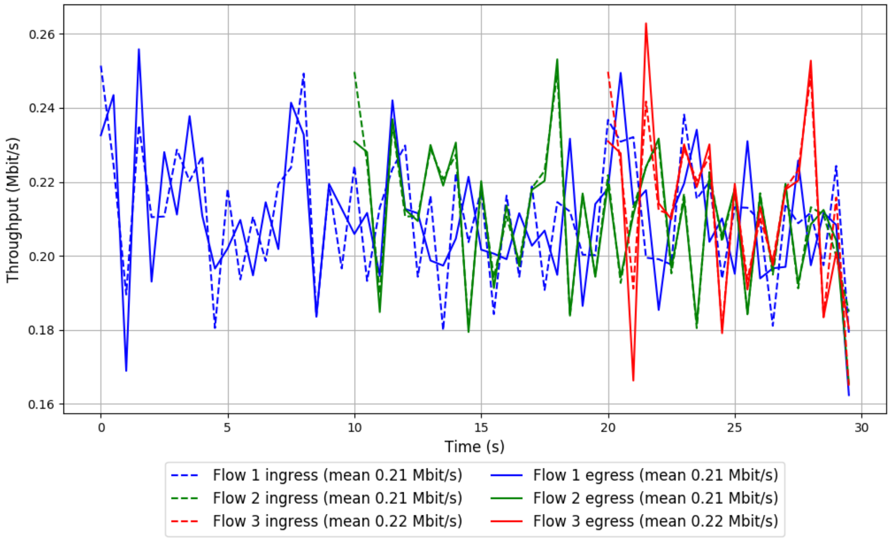
Run 10: Report of QUIC Cubic — Data Link

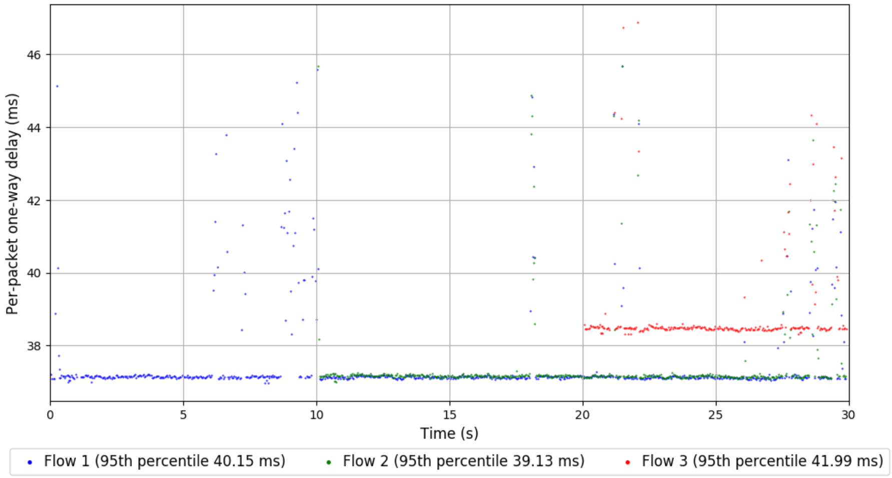




```
Run 1: Statistics of SCReAM

Start at: 2018-04-03 17:22:02
End at: 2018-04-03 17:22:32
Local clock offset: 0.426 ms
Remote clock offset: -3.52 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 40.411 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 40.149 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 39.132 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.986 ms
Loss rate: 0.35%
```

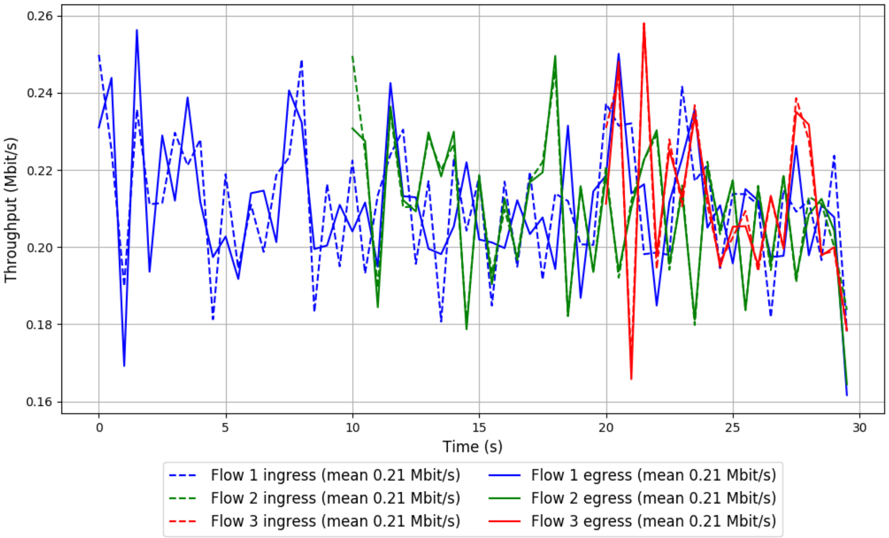
Run 1: Report of SCReAM — Data Link

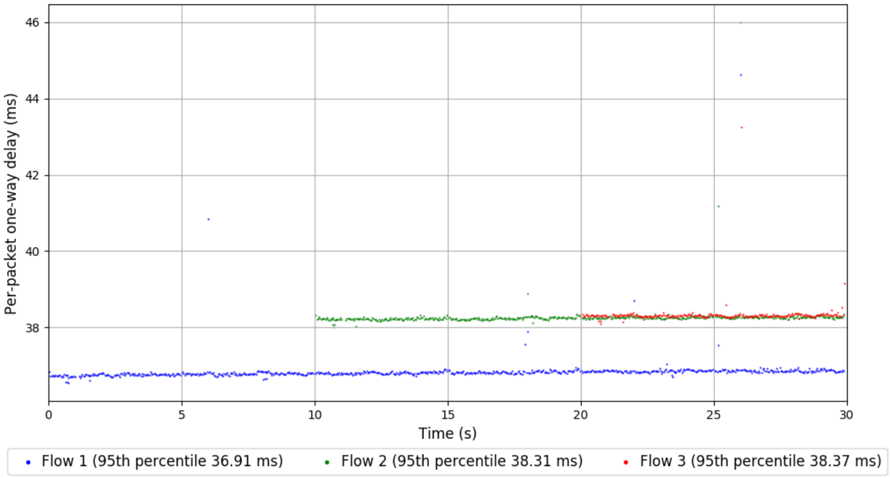




```
Run 2: Statistics of SCReAM

Start at: 2018-04-03 17:46:58
End at: 2018-04-03 17:47:28
Local clock offset: 0.568 ms
Remote clock offset: -3.732 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 38.332 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 36.905 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 38.311 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 38.370 ms
Loss rate: 0.35%
```

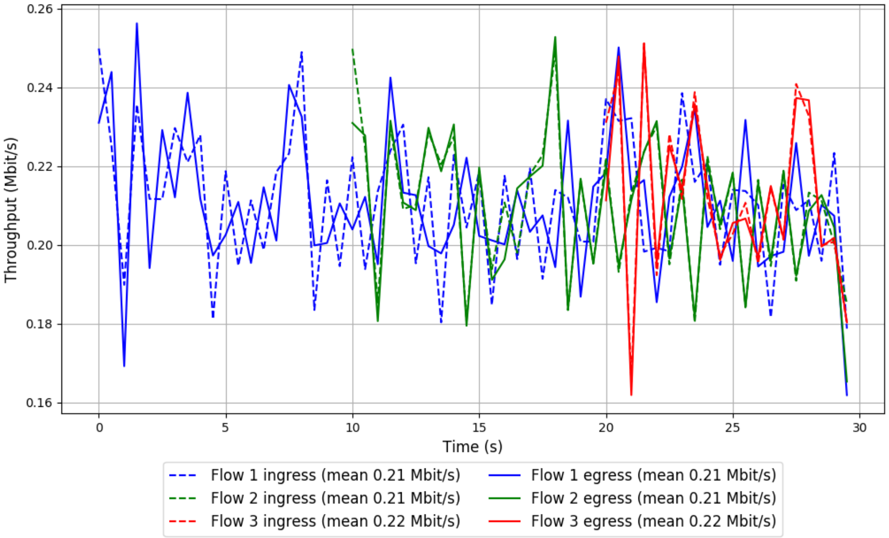
Run 2: Report of SCReAM — Data Link

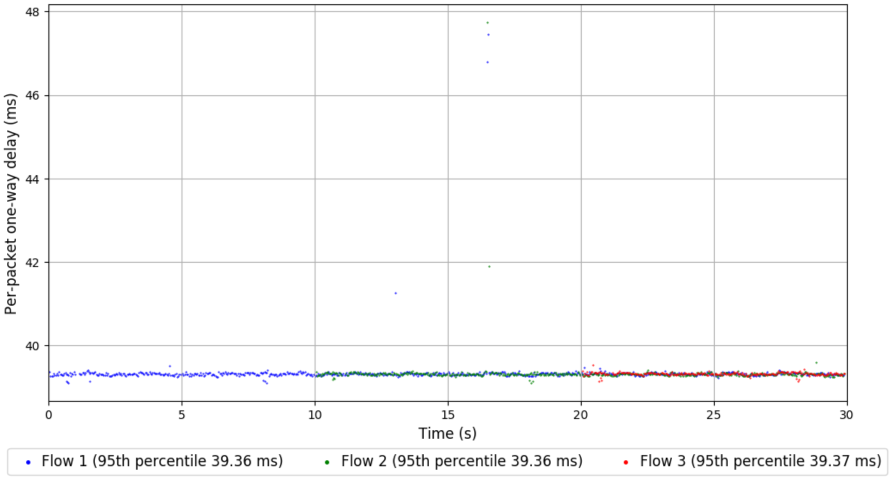




```
Run 3: Statistics of SCReAM

Start at: 2018-04-03 18:11:48
End at: 2018-04-03 18:12:18
Local clock offset: 0.269 ms
Remote clock offset: -4.375 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 39.363 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 39.364 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 39.359 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.367 ms
Loss rate: 0.36%
```

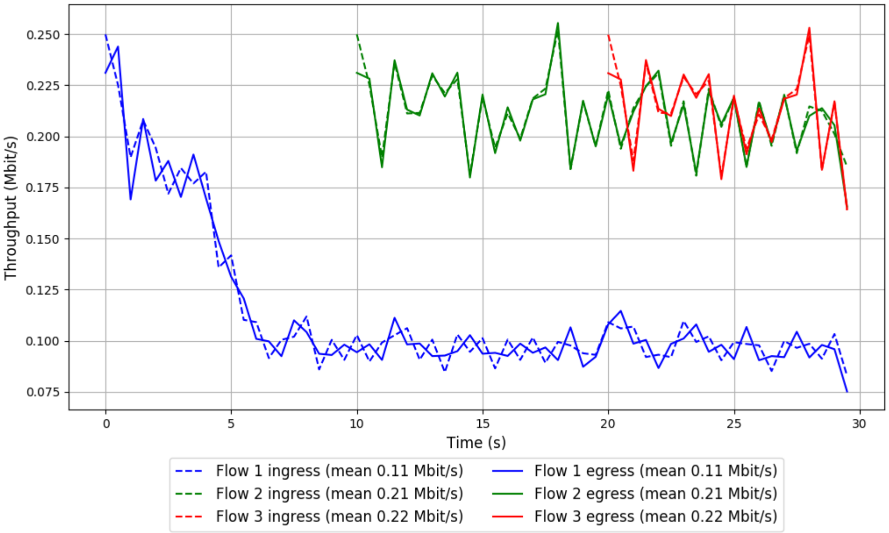
Run 3: Report of SCReAM — Data Link

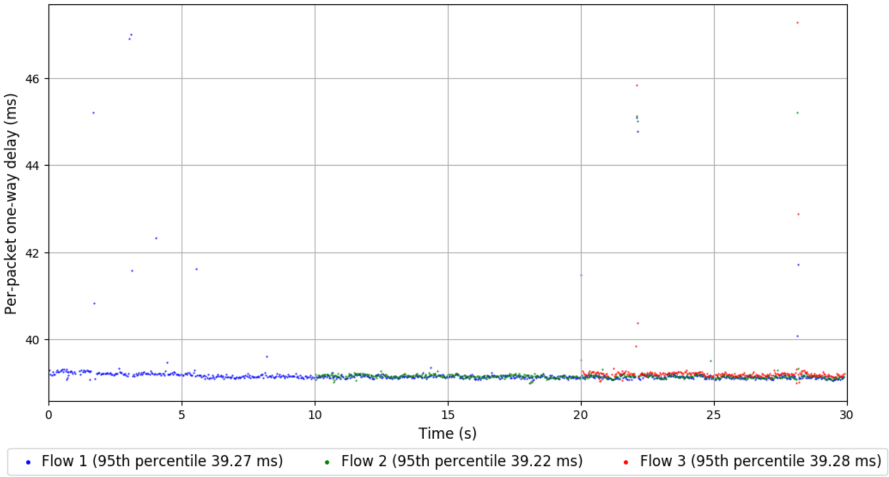




```
Run 4: Statistics of SCReAM

Start at: 2018-04-03 18:37:06
End at: 2018-04-03 18:37:36
Local clock offset: 0.007 ms
Remote clock offset: -7.465 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 39.261 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 39.267 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 39.215 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.278 ms
Loss rate: 0.35%
```

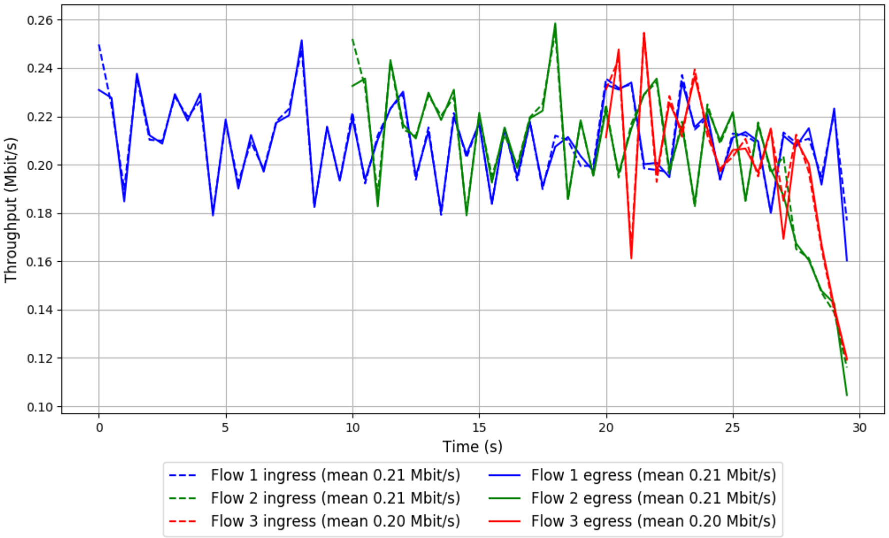
Run 4: Report of SCReAM — Data Link

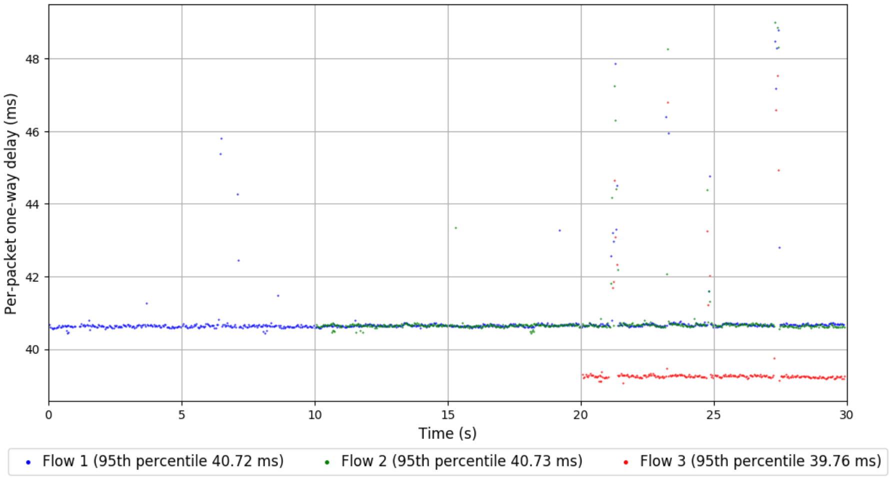




```
Run 5: Statistics of SCReAM

Start at: 2018-04-03 19:02:24
End at: 2018-04-03 19:02:54
Local clock offset: -0.073 ms
Remote clock offset: -6.145 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 40.726 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 40.724 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 40.729 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 39.757 ms
Loss rate: 0.68%
```

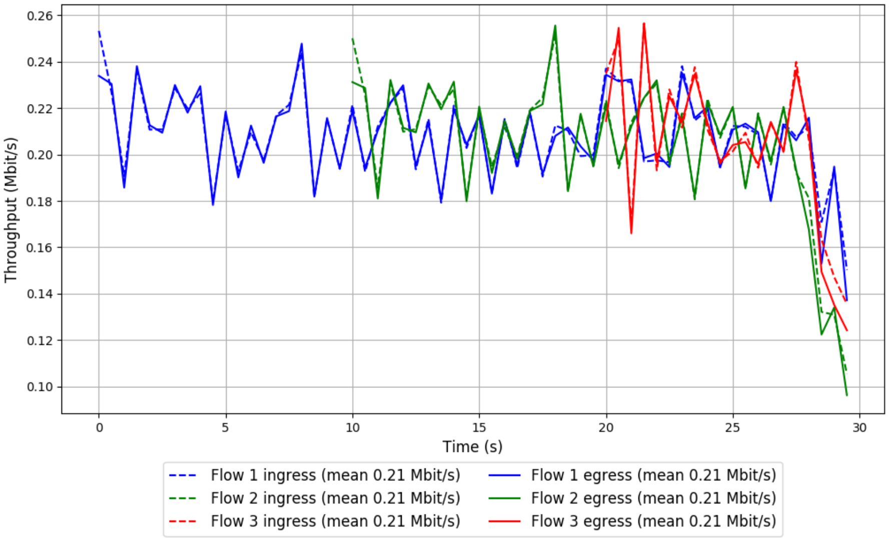
Run 5: Report of SCReAM — Data Link

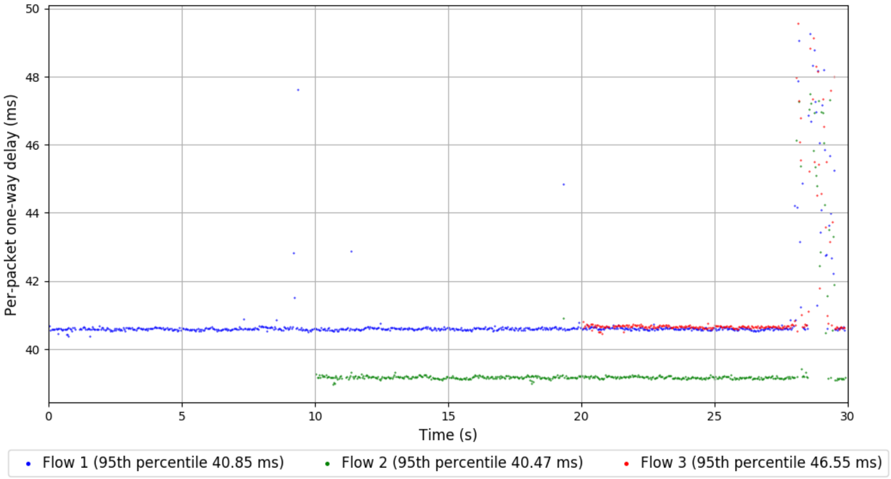




```
Run 6: Statistics of SCReAM

Start at: 2018-04-03 19:27:38
End at: 2018-04-03 19:28:08
Local clock offset: -0.644 ms
Remote clock offset: -5.093 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 42.432 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 40.853 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 40.467 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 46.545 ms
Loss rate: 1.31%
```

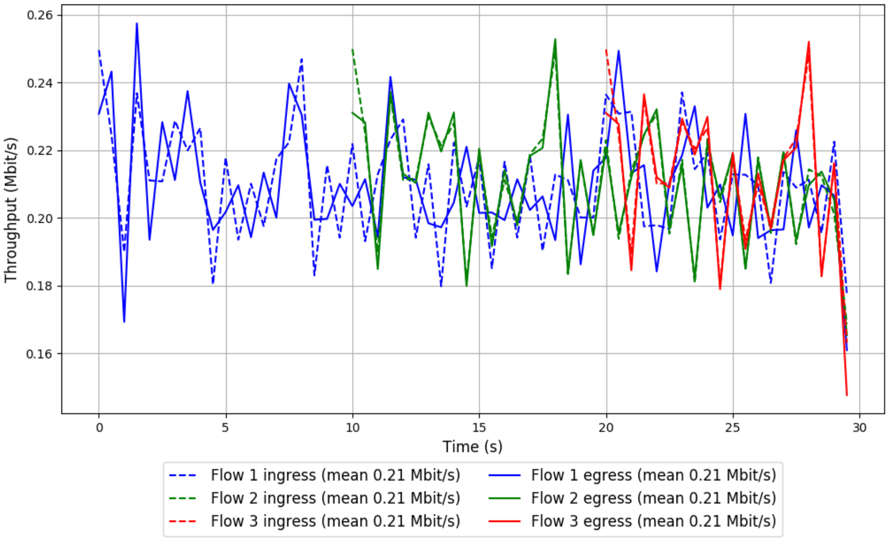
Run 6: Report of SCReAM — Data Link

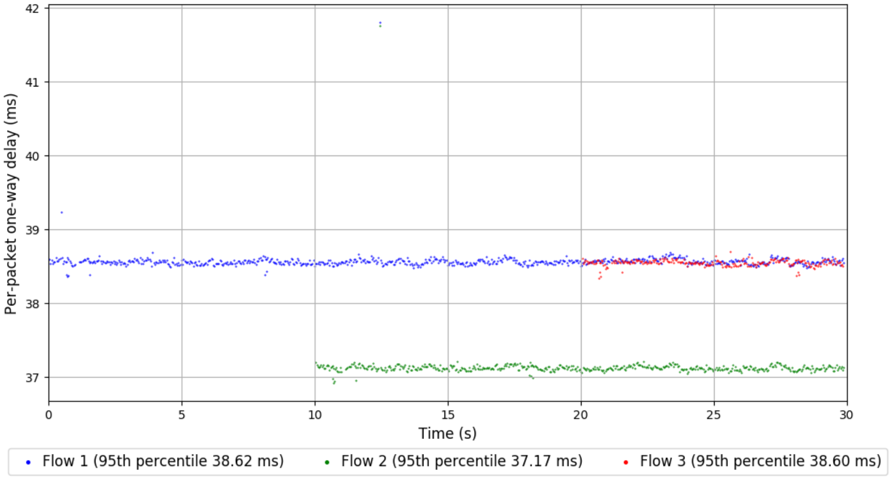




```
Run 7: Statistics of SCReAM

Start at: 2018-04-03 19:52:37
End at: 2018-04-03 19:53:07
Local clock offset: 0.097 ms
Remote clock offset: -3.291 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 38.609 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 38.620 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 37.175 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 38.603 ms
Loss rate: 0.74%
```

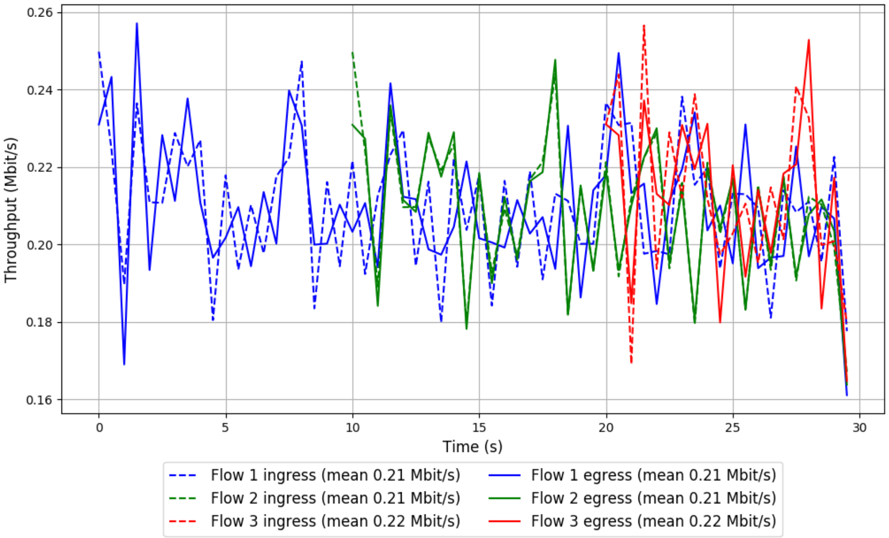
Run 7: Report of SCReAM — Data Link

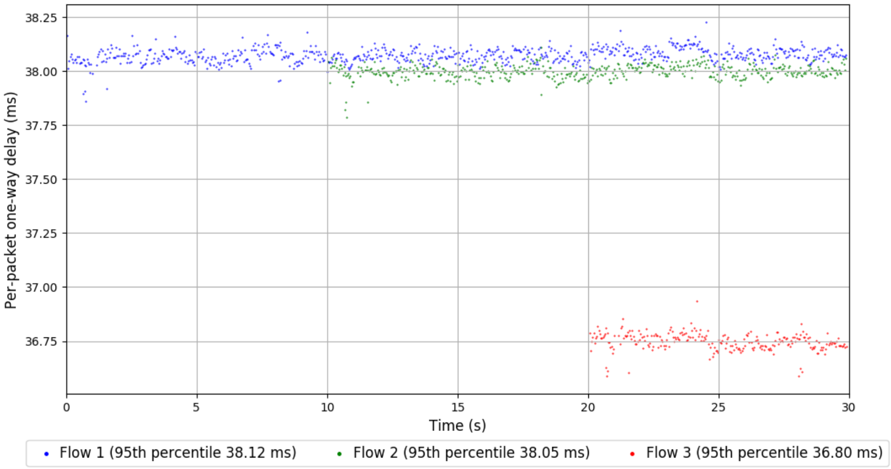




```
Run 8: Statistics of SCReAM

Start at: 2018-04-03 20:17:43
End at: 2018-04-03 20:18:13
Local clock offset: 0.671 ms
Remote clock offset: -1.418 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 38.114 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 38.124 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 38.047 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 36.802 ms
Loss rate: 0.35%
```

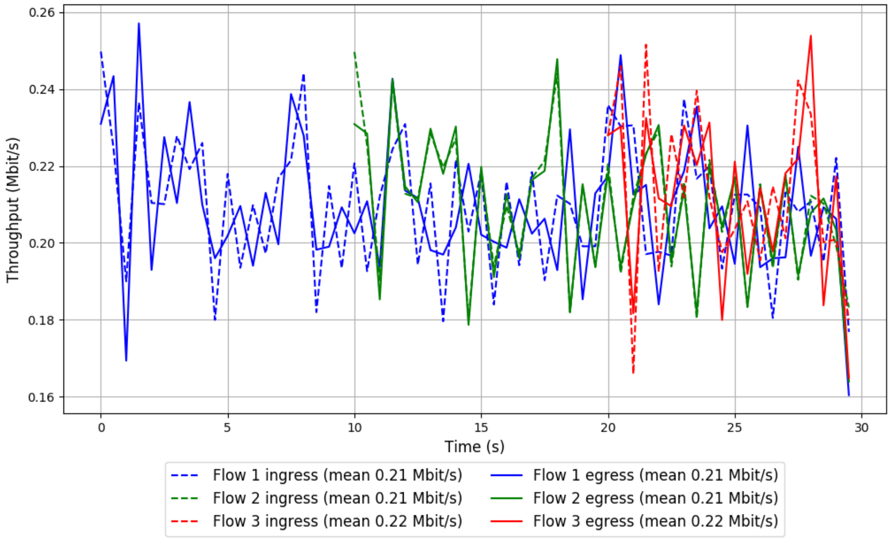
Run 8: Report of SCReAM — Data Link

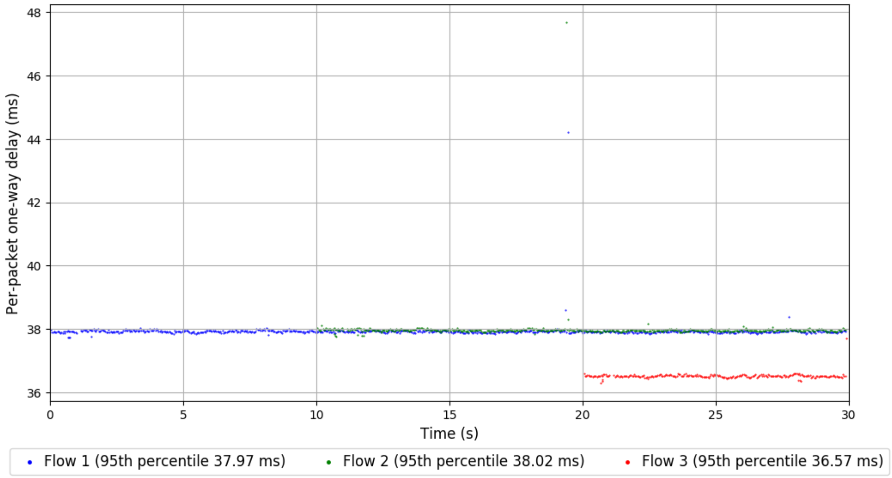




```
Run 9: Statistics of SCReAM

Start at: 2018-04-03 20:42:47
End at: 2018-04-03 20:43:17
Local clock offset: 0.699 ms
Remote clock offset: -1.19 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 37.996 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 37.965 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 38.016 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 36.569 ms
Loss rate: 0.35%
```

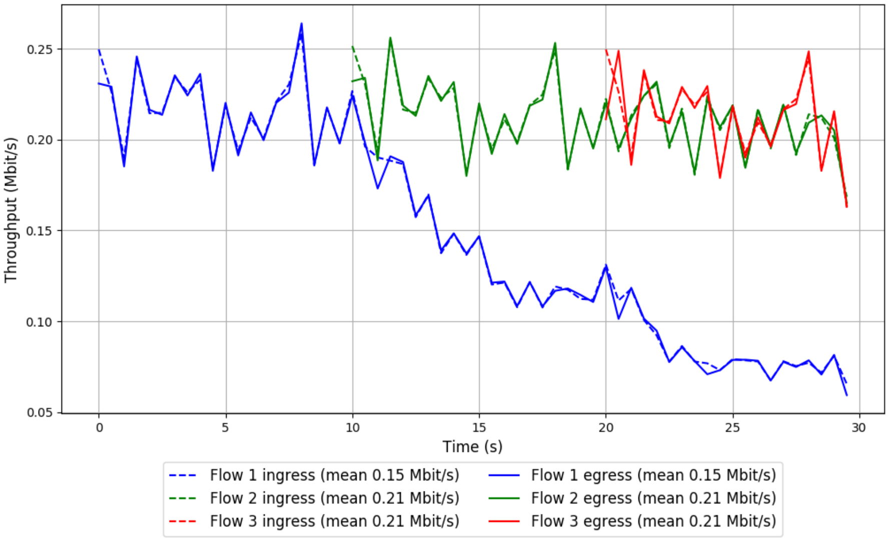
Run 9: Report of SCReAM — Data Link

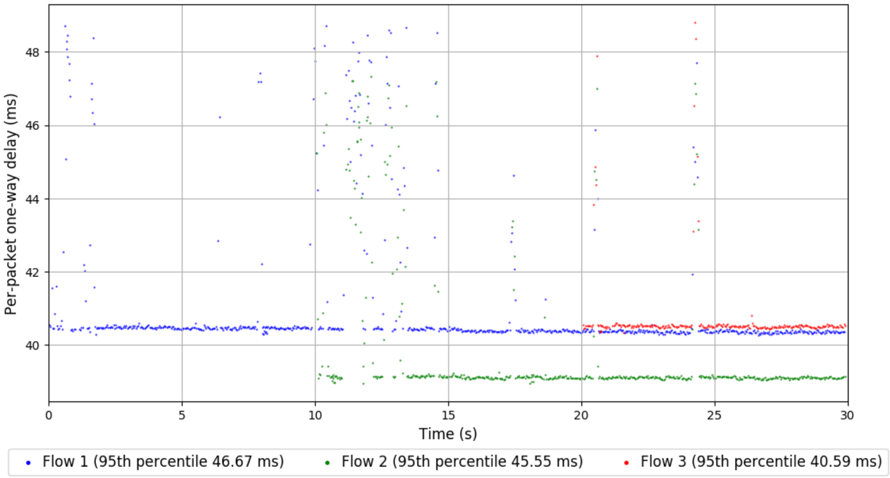




```
Run 10: Statistics of SCReAM

Start at: 2018-04-03 21:08:14
End at: 2018-04-03 21:08:44
Local clock offset: 0.655 ms
Remote clock offset: -4.686 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 45.861 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 46.675 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 45.549 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 40.592 ms
Loss rate: 0.35%
```

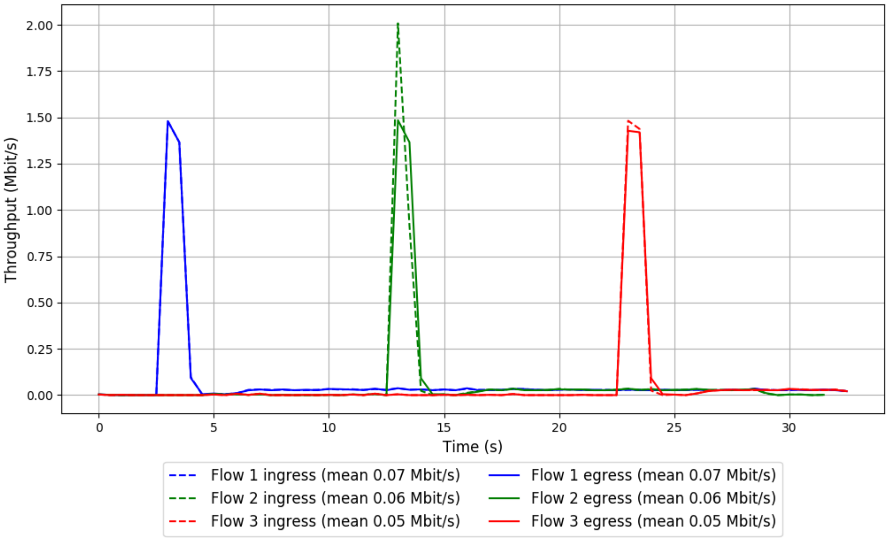
Run 10: Report of SCReAM — Data Link

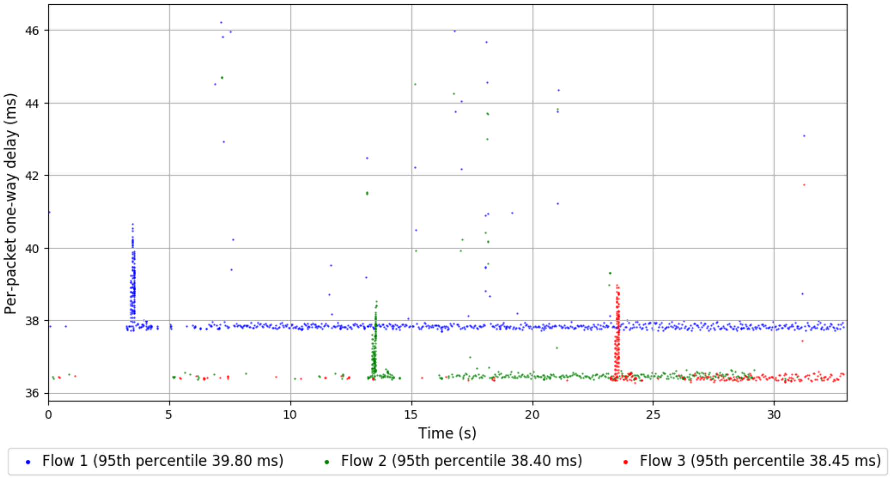




```
Run 1: Statistics of WebRTC media

Start at: 2018-04-03 17:19:12
End at: 2018-04-03 17:19:42
Local clock offset: 0.395 ms
Remote clock offset: -2.721 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 39.324 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 39.802 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 38.402 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 38.447 ms
Loss rate: 0.08%
```

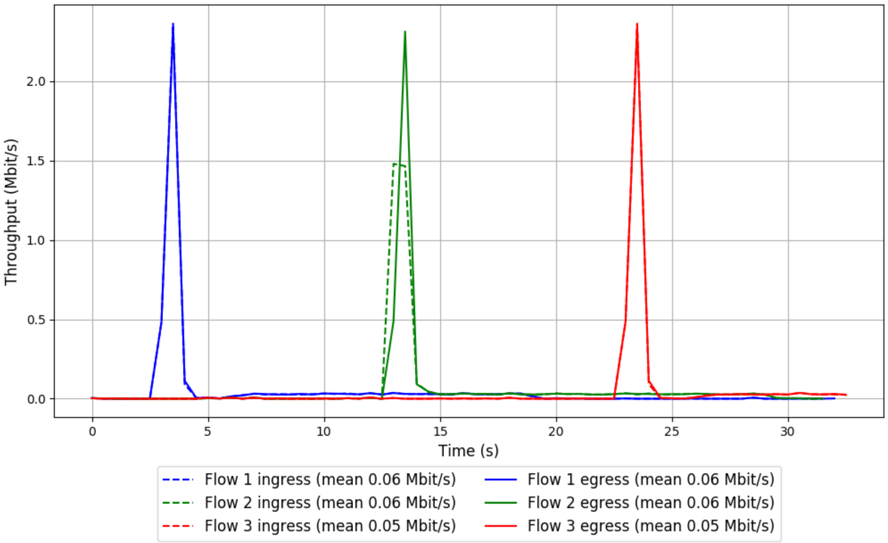
Run 1: Report of WebRTC media — Data Link

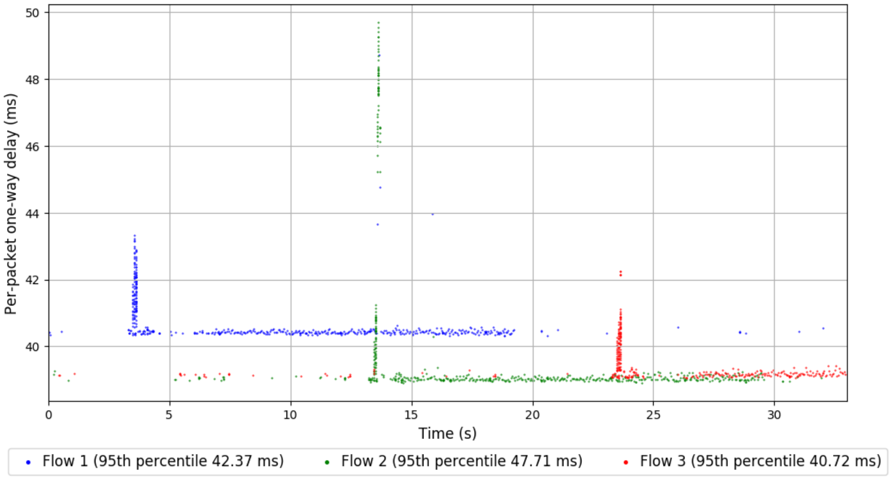




```
Run 2: Statistics of WebRTC media

Start at: 2018-04-03 17:44:16
End at: 2018-04-03 17:44:46
Local clock offset: 0.478 ms
Remote clock offset: -6.81 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 42.814 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 42.374 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 47.712 ms
Loss rate: 3.62%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 40.715 ms
Loss rate: 0.08%
```

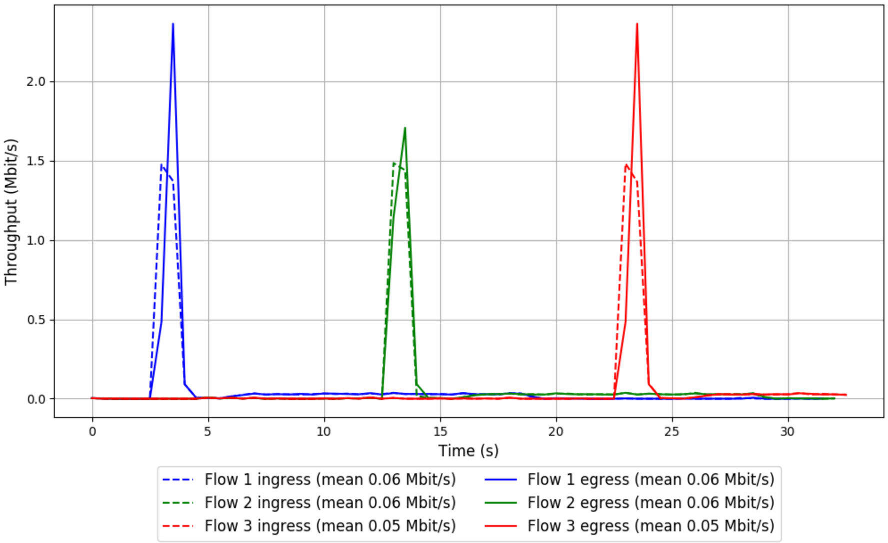
Run 2: Report of WebRTC media — Data Link

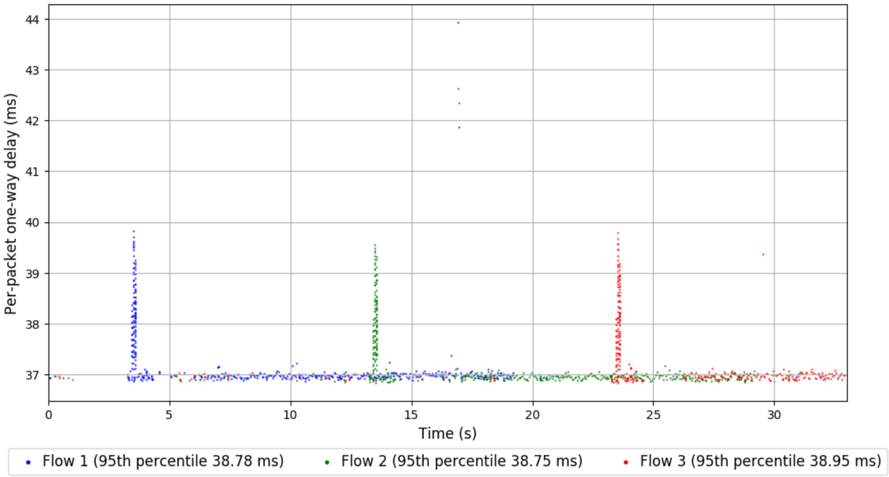




```
Run 3: Statistics of WebRTC media

Start at: 2018-04-03 18:09:06
End at: 2018-04-03 18:09:36
Local clock offset: 0.149 ms
Remote clock offset: -2.329 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 38.856 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 38.783 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 38.753 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 38.951 ms
Loss rate: 0.16%
```

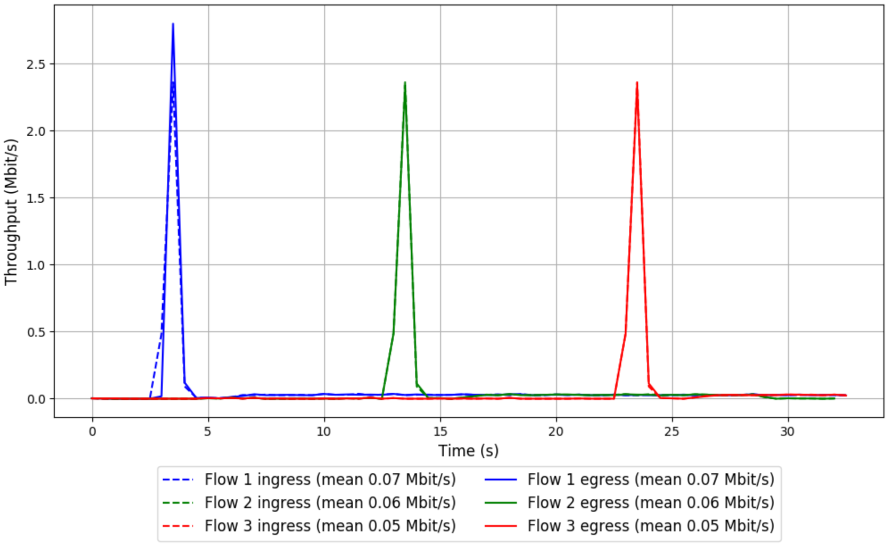
Run 3: Report of WebRTC media — Data Link

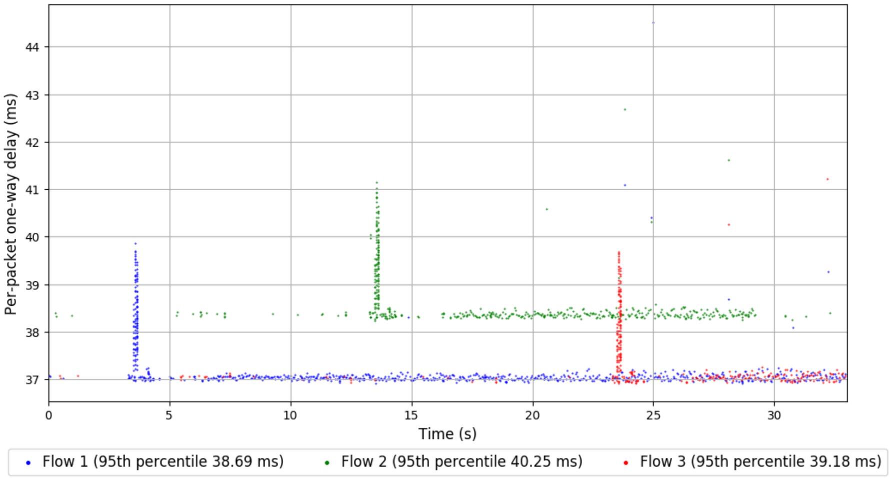




```
Run 4: Statistics of WebRTC media

Start at: 2018-04-03 18:34:15
End at: 2018-04-03 18:34:45
Local clock offset: 0.077 ms
Remote clock offset: -5.185 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 39.470 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 38.687 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.247 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 39.182 ms
Loss rate: 0.16%
```

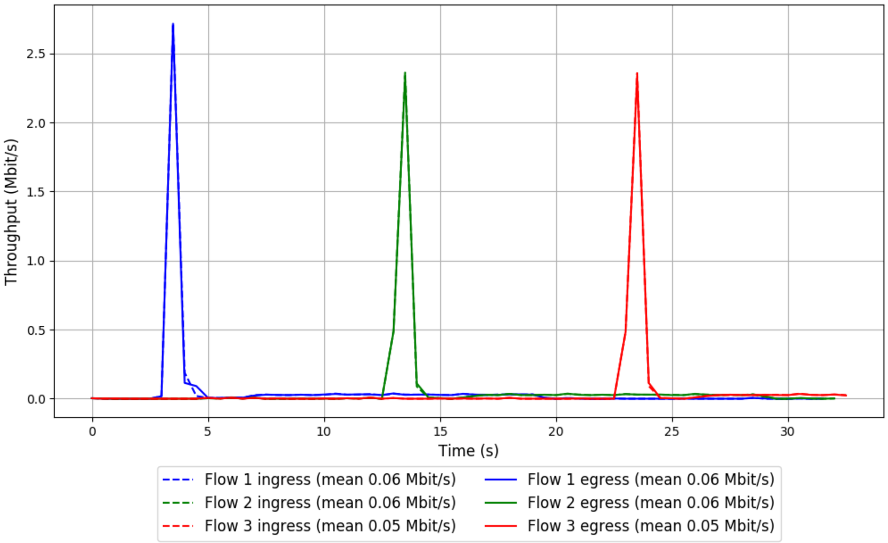
Run 4: Report of WebRTC media — Data Link

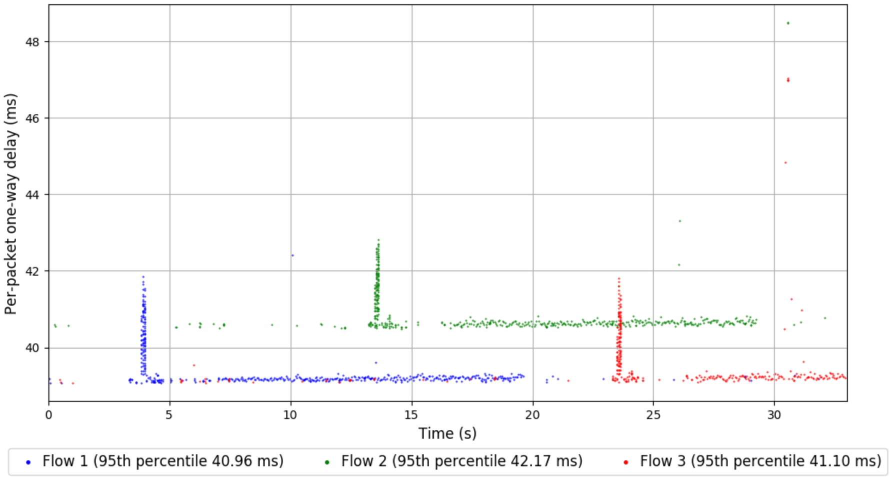




```
Run 5: Statistics of WebRTC media

Start at: 2018-04-03 18:59:40
End at: 2018-04-03 19:00:10
Local clock offset: -0.044 ms
Remote clock offset: -6.595 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 41.687 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.964 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 42.168 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 41.103 ms
Loss rate: 0.23%
```

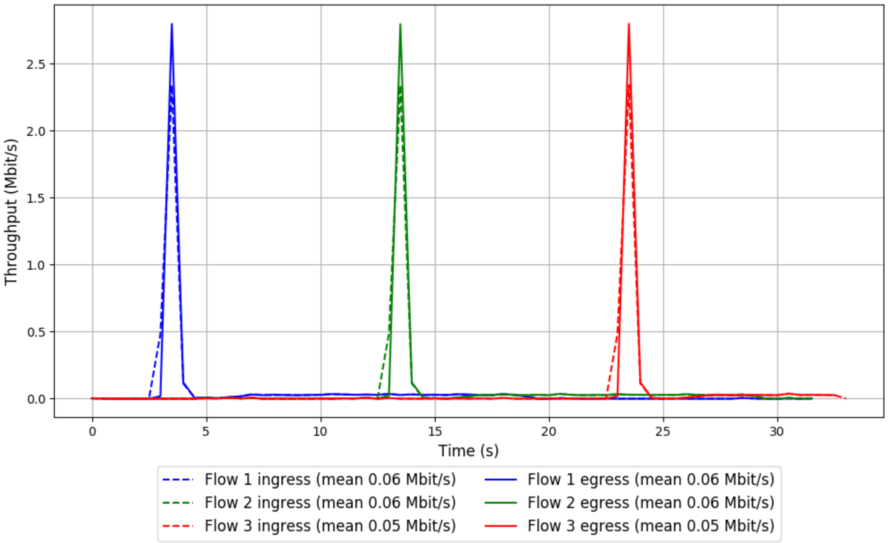
Run 5: Report of WebRTC media — Data Link

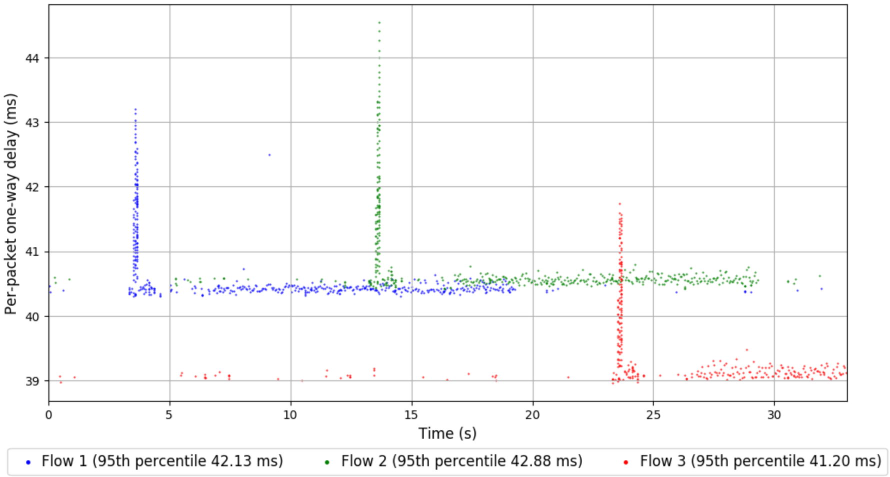




```
Run 6: Statistics of WebRTC media

Start at: 2018-04-03 19:24:55
End at: 2018-04-03 19:25:25
Local clock offset: -0.629 ms
Remote clock offset: -5.12 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 42.129 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 42.129 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 42.880 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 41.203 ms
Loss rate: 0.12%
```

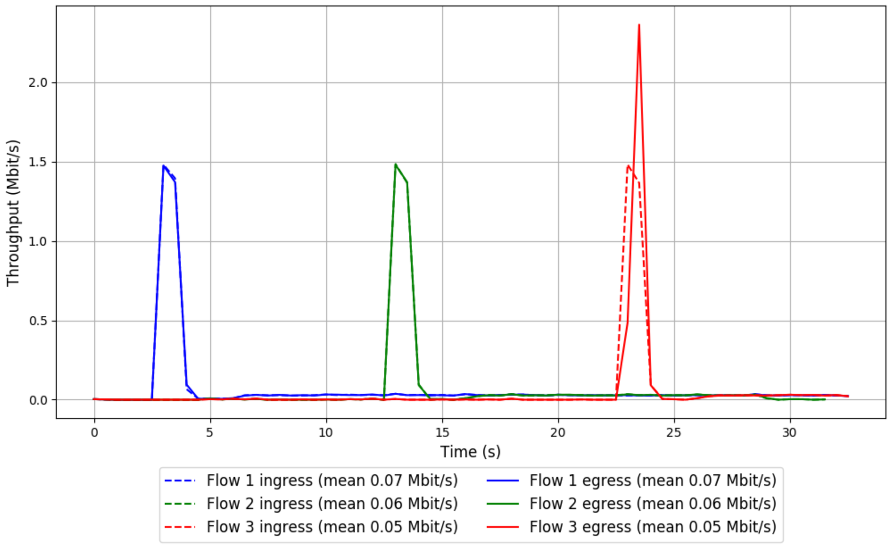
Run 6: Report of WebRTC media — Data Link

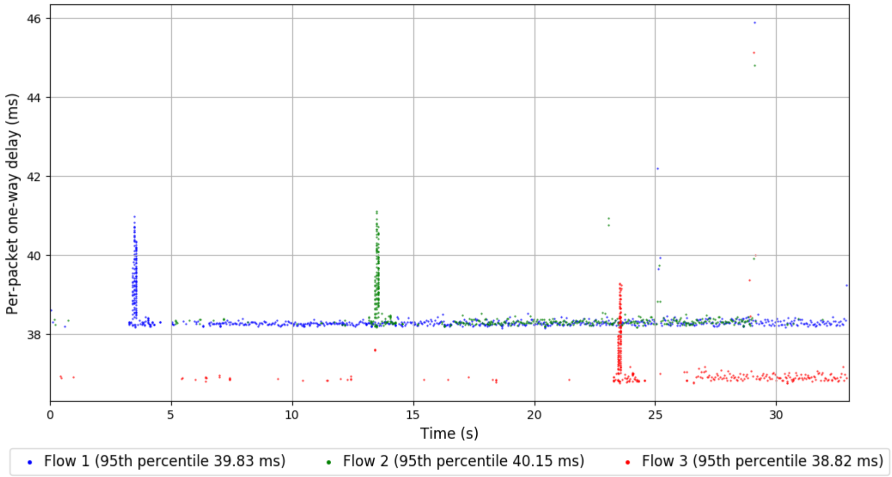




```
Run 7: Statistics of WebRTC media

Start at: 2018-04-03 19:49:54
End at: 2018-04-03 19:50:24
Local clock offset: 0.067 ms
Remote clock offset: -3.167 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 39.852 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 39.830 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.151 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 38.823 ms
Loss rate: 0.08%
```

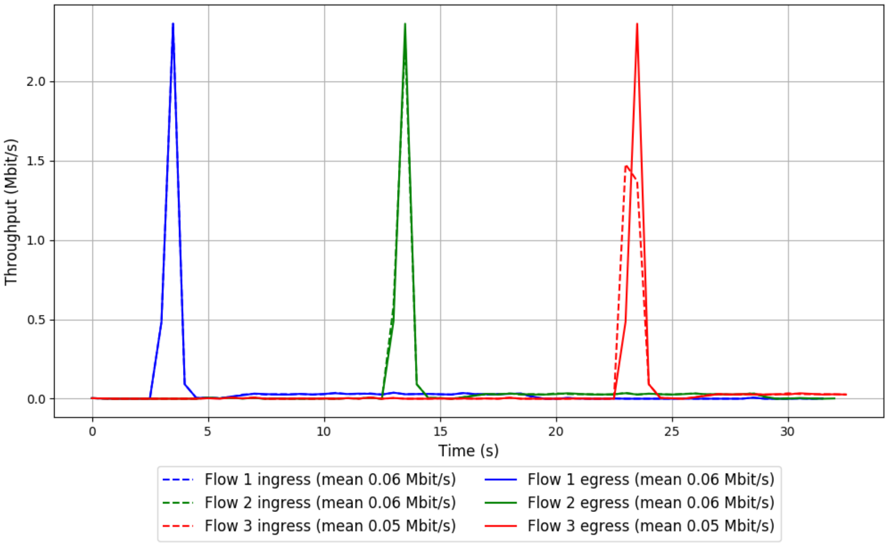
Run 7: Report of WebRTC media — Data Link

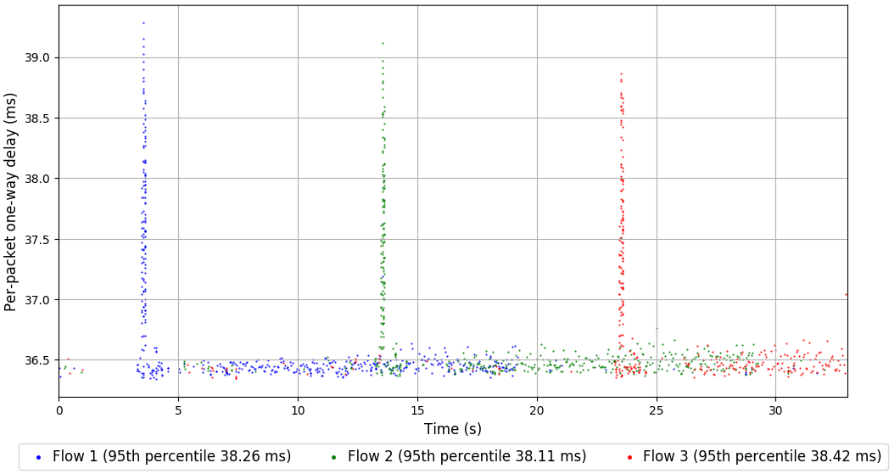




```
Run 8: Statistics of WebRTC media

Start at: 2018-04-03 20:15:01
End at: 2018-04-03 20:15:31
Local clock offset: 0.589 ms
Remote clock offset: -1.55 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 38.235 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 38.258 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 38.111 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 38.420 ms
Loss rate: 0.08%
```

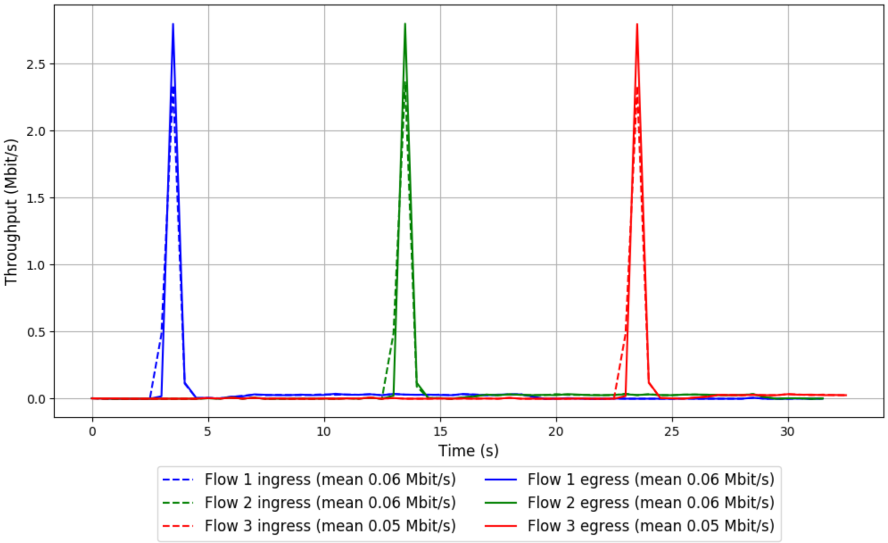
Run 8: Report of WebRTC media — Data Link

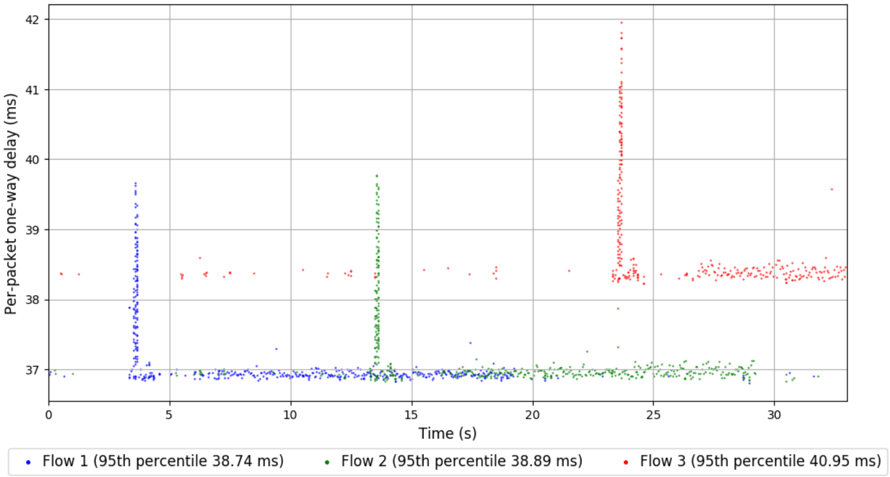




```
Run 9: Statistics of WebRTC media

Start at: 2018-04-03 20:40:03
End at: 2018-04-03 20:40:33
Local clock offset: 0.783 ms
Remote clock offset: -1.565 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 39.761 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 38.743 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 38.893 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 40.945 ms
Loss rate: 0.08%
```

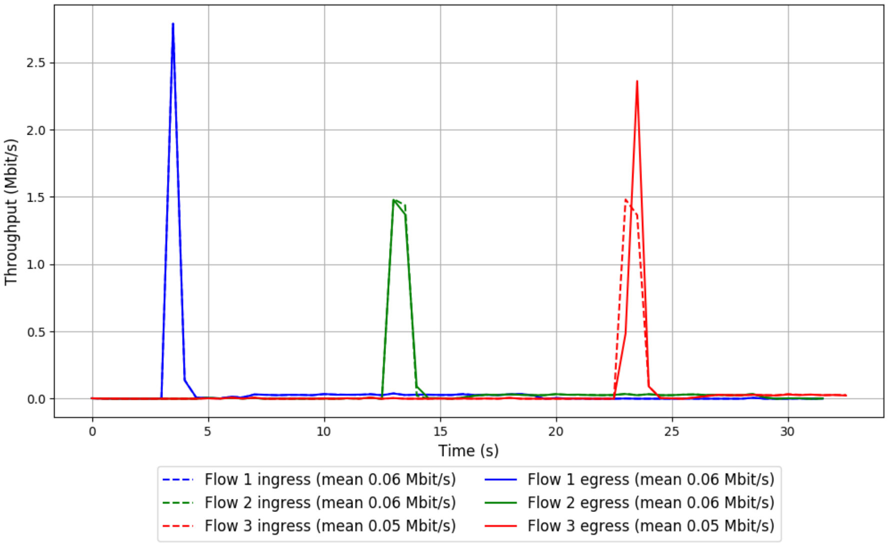
Run 9: Report of WebRTC media — Data Link

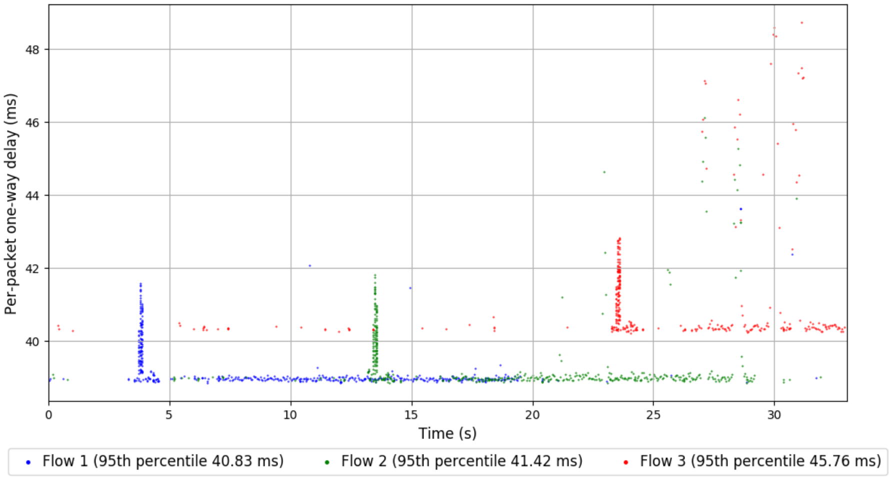




```
Run 10: Statistics of WebRTC media

Start at: 2018-04-03 21:05:29
End at: 2018-04-03 21:05:59
Local clock offset: 0.626 ms
Remote clock offset: -4.596 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 42.229 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.831 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 41.419 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 45.757 ms
Loss rate: 0.43%
```

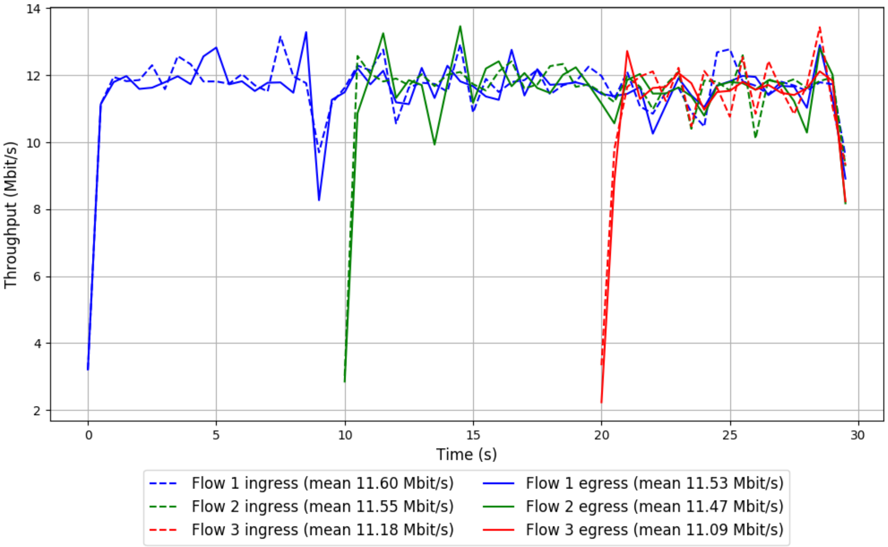
Run 10: Report of WebRTC media — Data Link

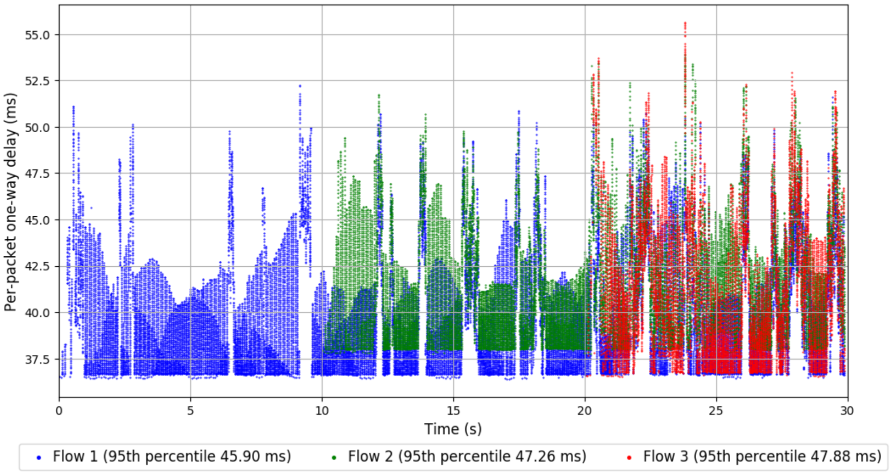




```
Run 1: Statistics of Sprout

Start at: 2018-04-03 17:08:58
End at: 2018-04-03 17:09:28
Local clock offset: 0.328 ms
Remote clock offset: -1.581 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.80 Mbit/s
95th percentile per-packet one-way delay: 46.806 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 11.53 Mbit/s
95th percentile per-packet one-way delay: 45.899 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 11.47 Mbit/s
95th percentile per-packet one-way delay: 47.255 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 11.09 Mbit/s
95th percentile per-packet one-way delay: 47.882 ms
Loss rate: 1.39%
```

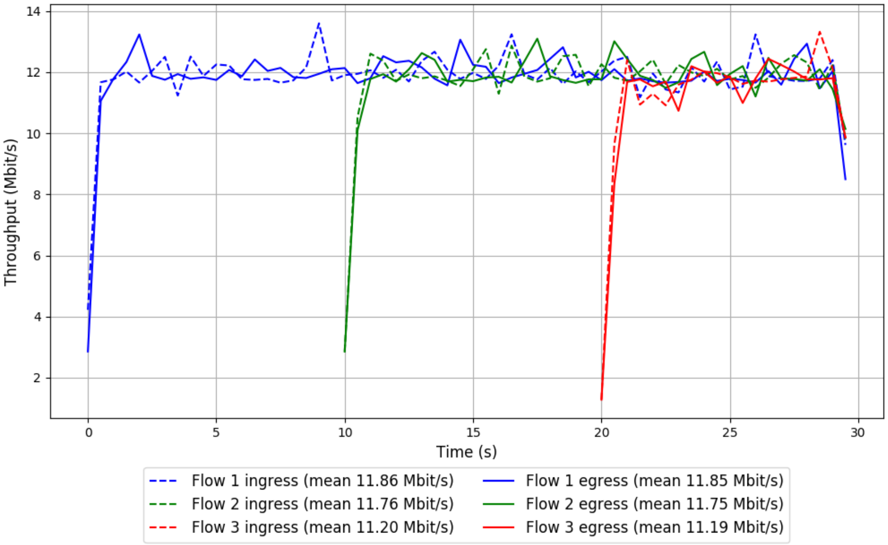
Run 1: Report of Sprout — Data Link

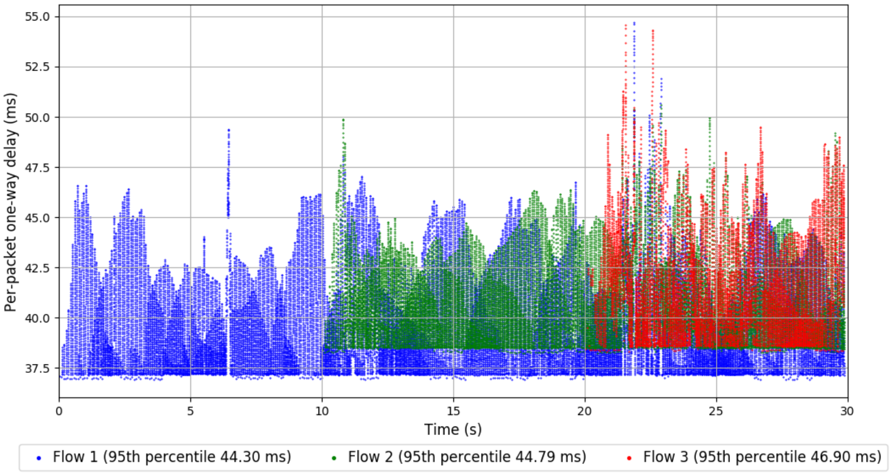




```
Run 2: Statistics of Sprout

Start at: 2018-04-03 17:34:30
End at: 2018-04-03 17:35:00
Local clock offset: 0.495 ms
Remote clock offset: -4.191 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.33 Mbit/s
95th percentile per-packet one-way delay: 44.971 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 44.295 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 44.790 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 11.19 Mbit/s
95th percentile per-packet one-way delay: 46.904 ms
Loss rate: 0.89%
```

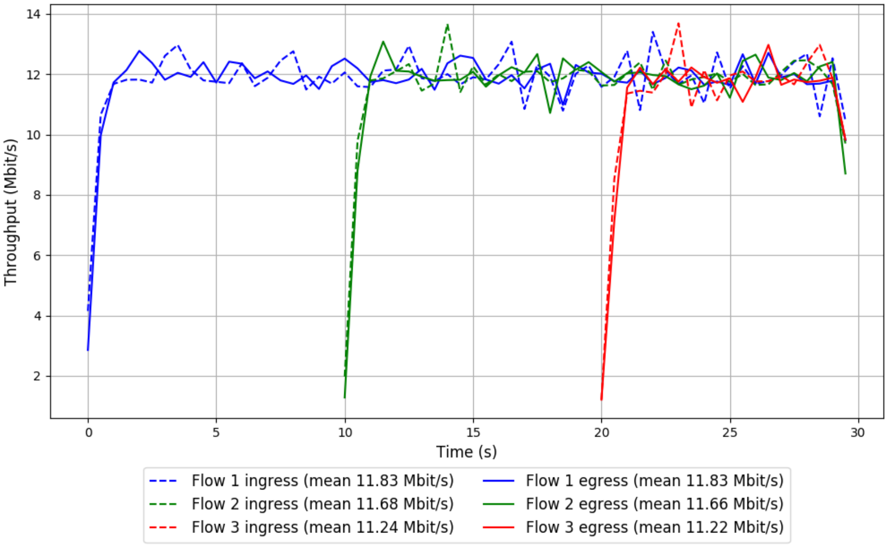
Run 2: Report of Sprout — Data Link

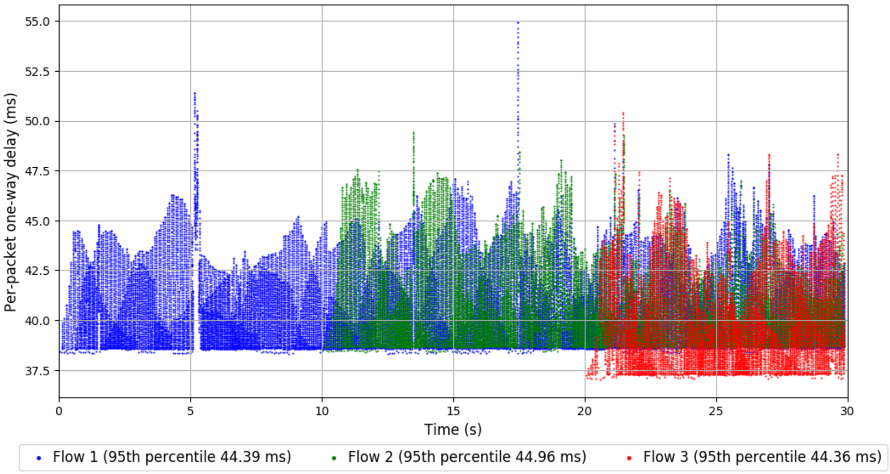




```
Run 3: Statistics of Sprout

Start at: 2018-04-03 17:59:19
End at: 2018-04-03 17:59:49
Local clock offset: 0.301 ms
Remote clock offset: -2.646 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.27 Mbit/s
95th percentile per-packet one-way delay: 44.569 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 44.389 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 11.66 Mbit/s
95th percentile per-packet one-way delay: 44.962 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 44.363 ms
Loss rate: 0.88%
```

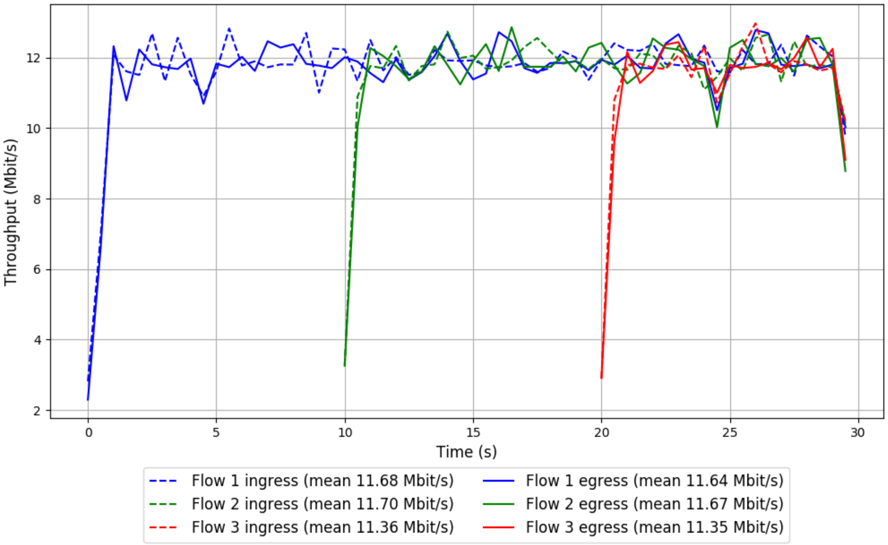
Run 3: Report of Sprout — Data Link

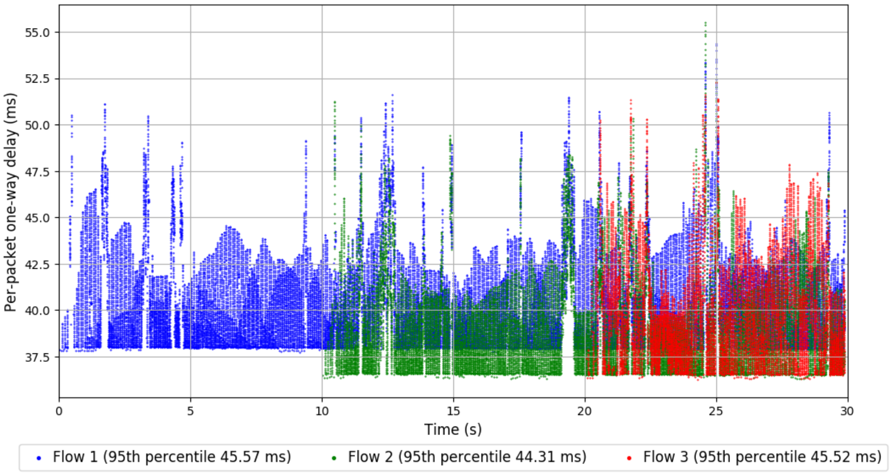




```
Run 4: Statistics of Sprout

Start at: 2018-04-03 18:24:25
End at: 2018-04-03 18:24:55
Local clock offset: 0.184 ms
Remote clock offset: -3.179 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.14 Mbit/s
95th percentile per-packet one-way delay: 45.191 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 11.64 Mbit/s
95th percentile per-packet one-way delay: 45.570 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 44.308 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 11.35 Mbit/s
95th percentile per-packet one-way delay: 45.516 ms
Loss rate: 0.71%
```

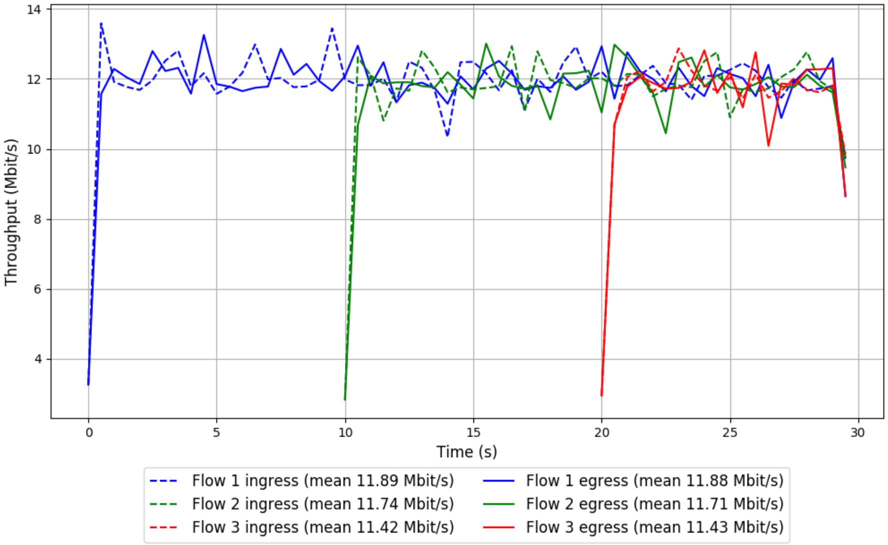
Run 4: Report of Sprout — Data Link

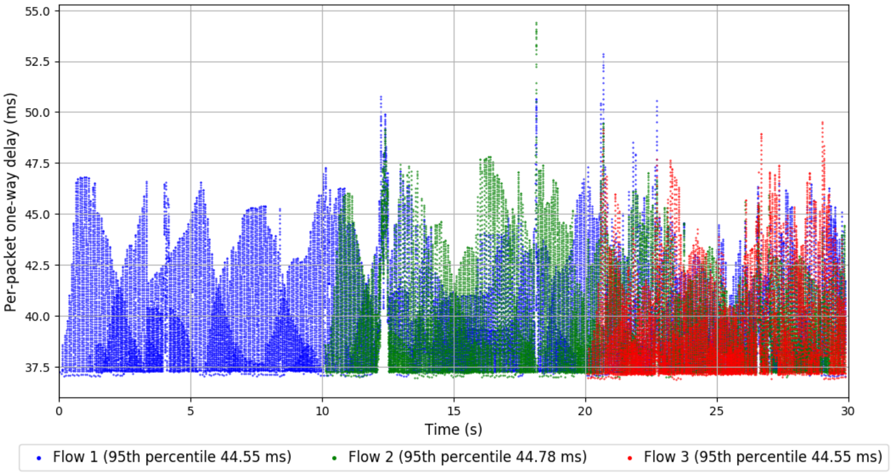




```
Run 5: Statistics of Sprout

Start at: 2018-04-03 18:49:41
End at: 2018-04-03 18:50:11
Local clock offset: -0.04 ms
Remote clock offset: -6.137 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.41 Mbit/s
95th percentile per-packet one-way delay: 44.619 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 11.88 Mbit/s
95th percentile per-packet one-way delay: 44.553 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 11.71 Mbit/s
95th percentile per-packet one-way delay: 44.780 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 11.43 Mbit/s
95th percentile per-packet one-way delay: 44.546 ms
Loss rate: 0.52%
```

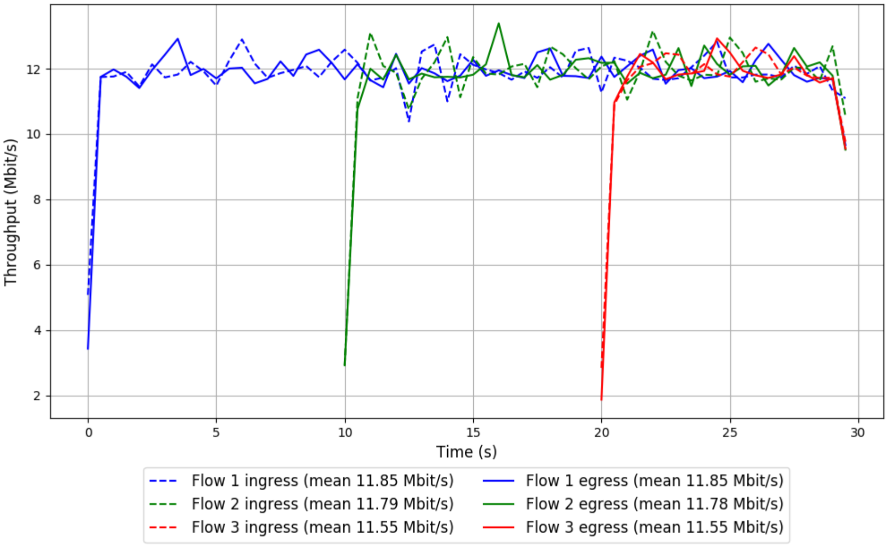
Run 5: Report of Sprout — Data Link

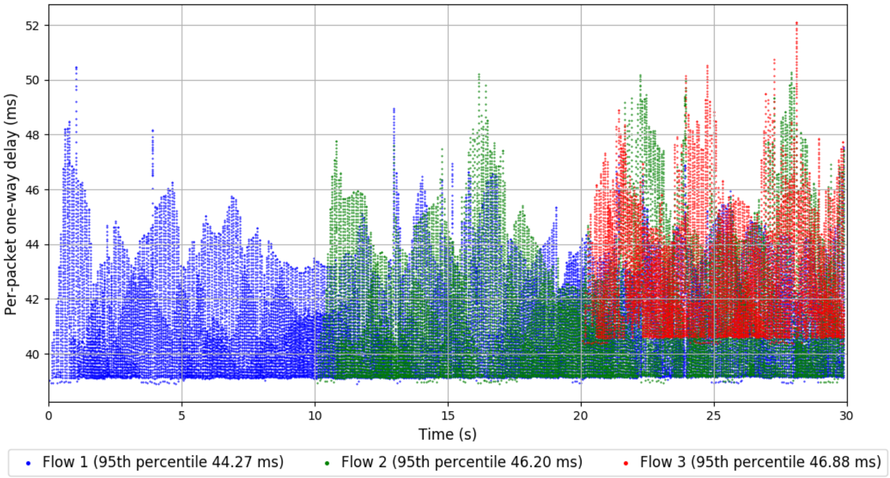




```
Run 6: Statistics of Sprout

Start at: 2018-04-03 19:15:04
End at: 2018-04-03 19:15:34
Local clock offset: -0.402 ms
Remote clock offset: -5.168 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.46 Mbit/s
95th percentile per-packet one-way delay: 45.567 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 44.266 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 46.203 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 11.55 Mbit/s
95th percentile per-packet one-way delay: 46.883 ms
Loss rate: 0.86%
```

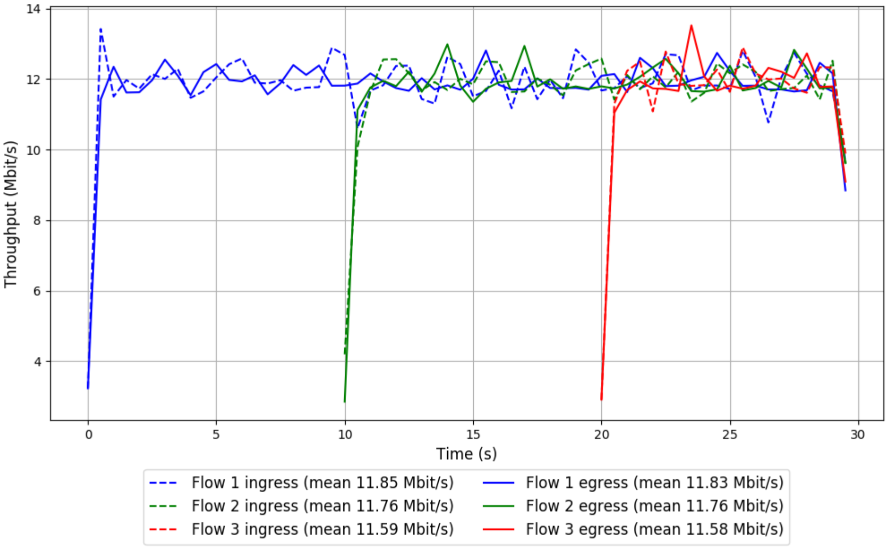
Run 6: Report of Sprout — Data Link

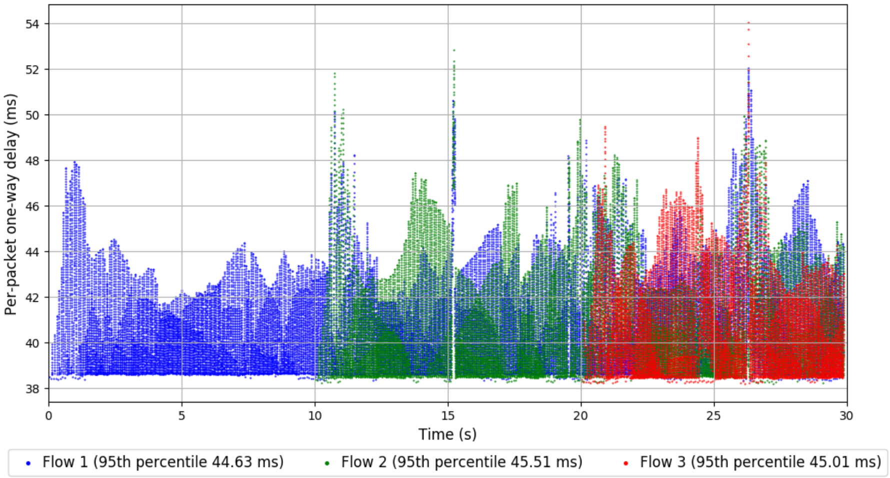




```
Run 7: Statistics of Sprout

Start at: 2018-04-03 19:40:10
End at: 2018-04-03 19:40:40
Local clock offset: -0.071 ms
Remote clock offset: -3.09 ms

# Below is generated by plot.py at 2018-04-04 02:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.46 Mbit/s
95th percentile per-packet one-way delay: 45.011 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 44.630 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 11.76 Mbit/s
95th percentile per-packet one-way delay: 45.512 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 11.58 Mbit/s
95th percentile per-packet one-way delay: 45.013 ms
Loss rate: 0.83%
```

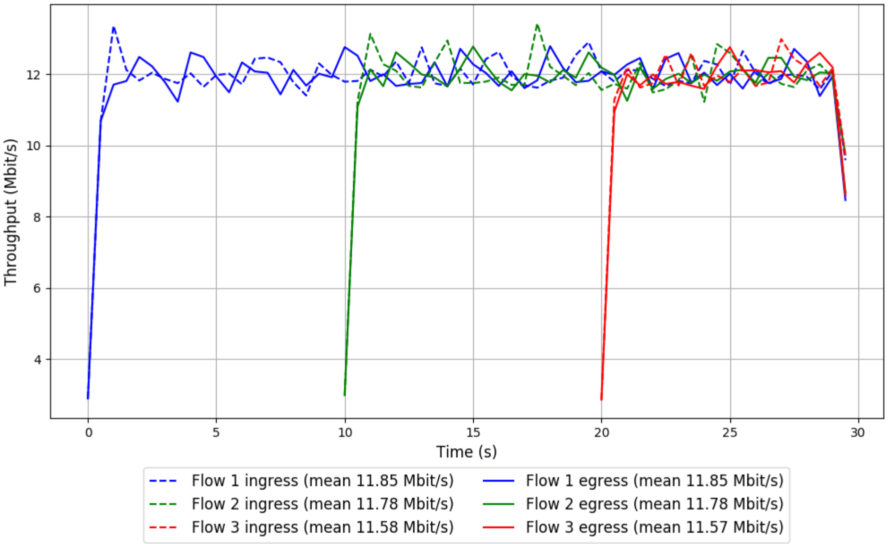
Run 7: Report of Sprout — Data Link

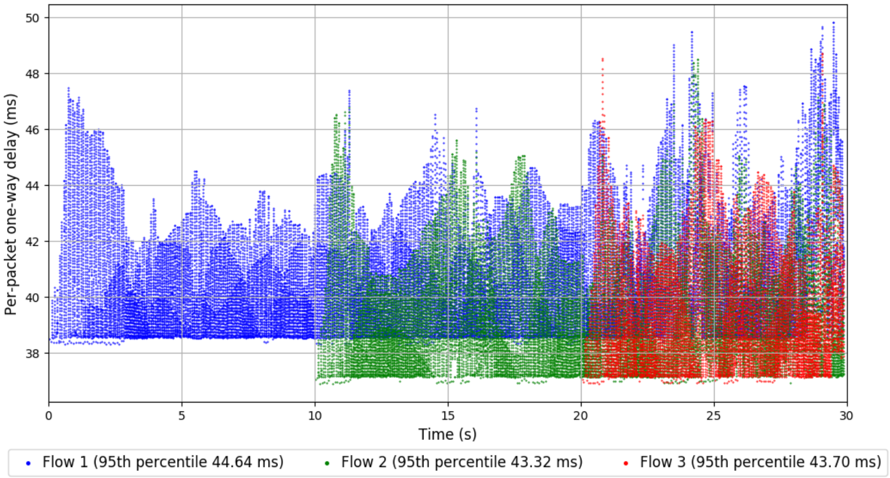




```
Run 8: Statistics of Sprout

Start at: 2018-04-03 20:05:11
End at: 2018-04-03 20:05:41
Local clock offset: 0.296 ms
Remote clock offset: -2.75 ms

# Below is generated by plot.py at 2018-04-04 02:33:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.48 Mbit/s
95th percentile per-packet one-way delay: 44.115 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 44.640 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 43.317 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 43.700 ms
Loss rate: 0.71%
```

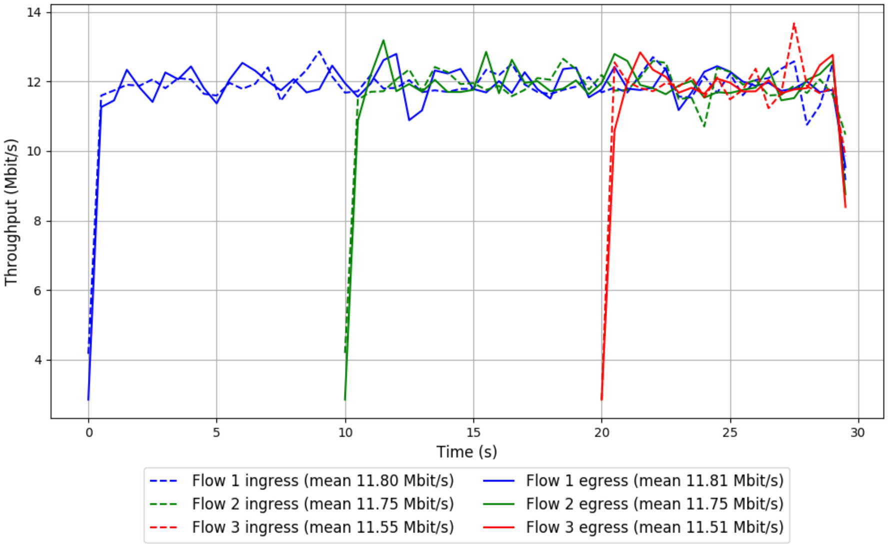
Run 8: Report of Sprout — Data Link

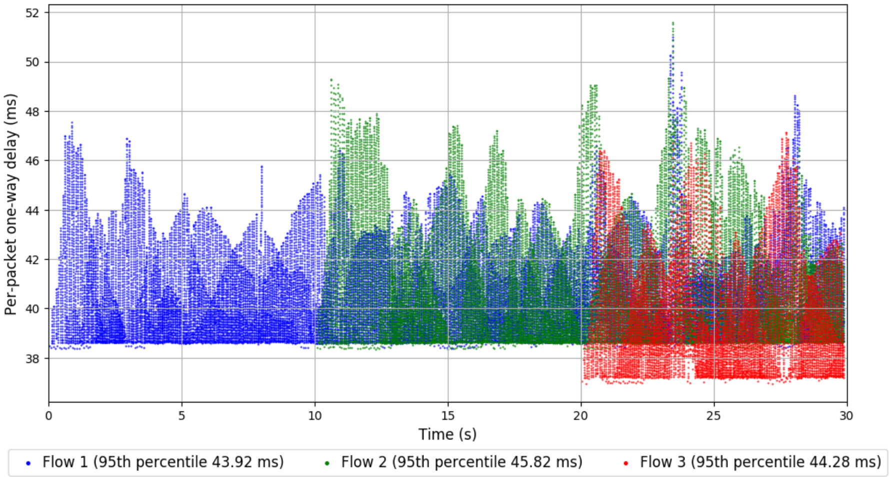




```
Run 9: Statistics of Sprout

Start at: 2018-04-03 20:30:05
End at: 2018-04-03 20:30:35
Local clock offset: 0.884 ms
Remote clock offset: -1.312 ms

# Below is generated by plot.py at 2018-04-04 02:33:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.40 Mbit/s
95th percentile per-packet one-way delay: 44.704 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 11.81 Mbit/s
95th percentile per-packet one-way delay: 43.916 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 45.816 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 11.51 Mbit/s
95th percentile per-packet one-way delay: 44.281 ms
Loss rate: 0.73%
```

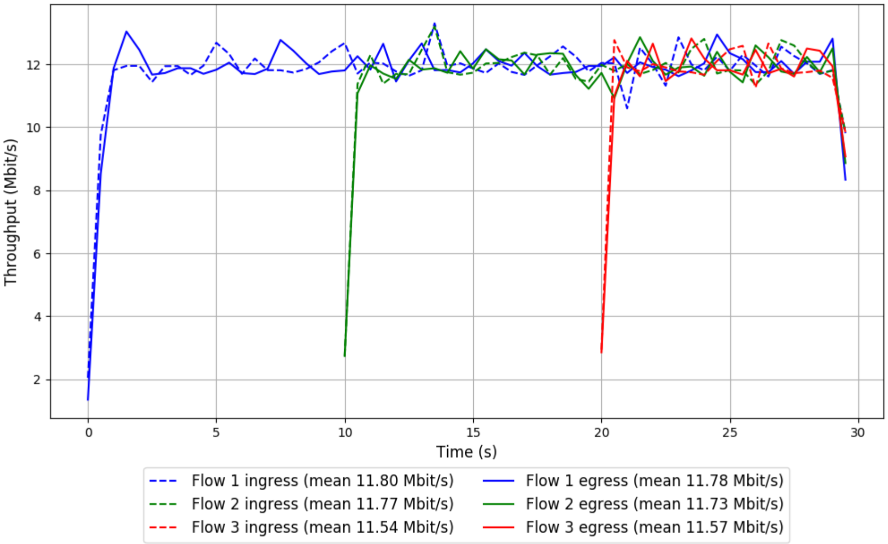
Run 9: Report of Sprout — Data Link

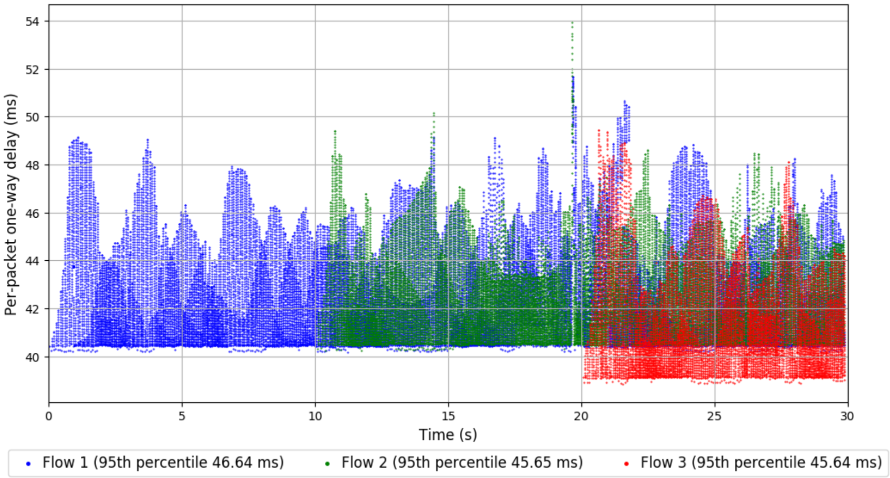




```
Run 10: Statistics of Sprout

Start at: 2018-04-03 20:55:21
End at: 2018-04-03 20:55:51
Local clock offset: 0.569 ms
Remote clock offset: -4.152 ms

# Below is generated by plot.py at 2018-04-04 02:33:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.38 Mbit/s
95th percentile per-packet one-way delay: 46.180 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 46.638 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 11.73 Mbit/s
95th percentile per-packet one-way delay: 45.646 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 45.643 ms
Loss rate: 0.34%
```

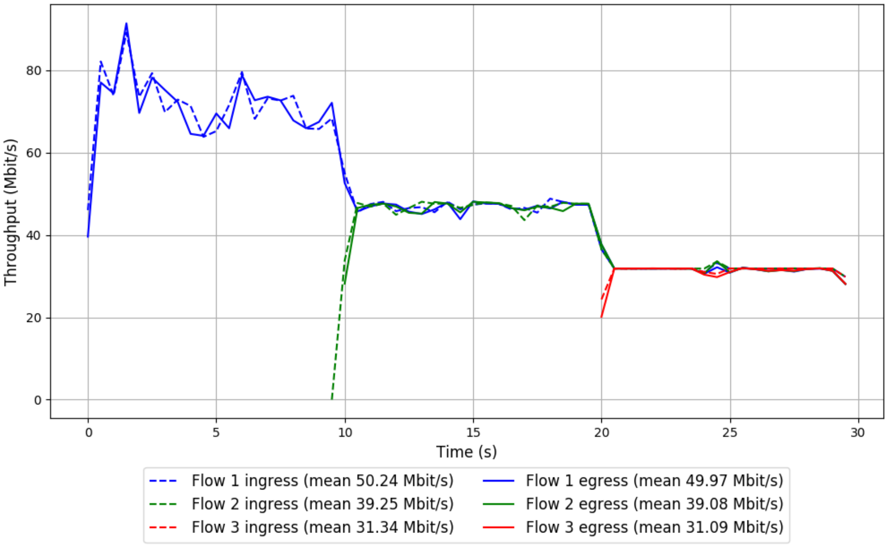
Run 10: Report of Sprout — Data Link

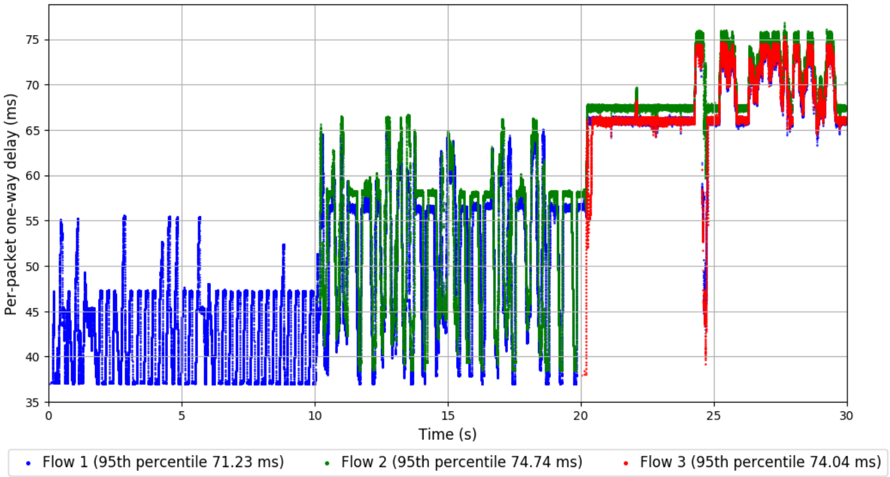




```
Run 1: Statistics of TaoVA-100x

Start at: 2018-04-03 17:13:15
End at: 2018-04-03 17:13:45
Local clock offset: 0.408 ms
Remote clock offset: -2.55 ms

# Below is generated by plot.py at 2018-04-04 02:35:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.25 Mbit/s
95th percentile per-packet one-way delay: 73.513 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 49.97 Mbit/s
95th percentile per-packet one-way delay: 71.231 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 39.08 Mbit/s
95th percentile per-packet one-way delay: 74.737 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 31.09 Mbit/s
95th percentile per-packet one-way delay: 74.038 ms
Loss rate: 1.64%
```

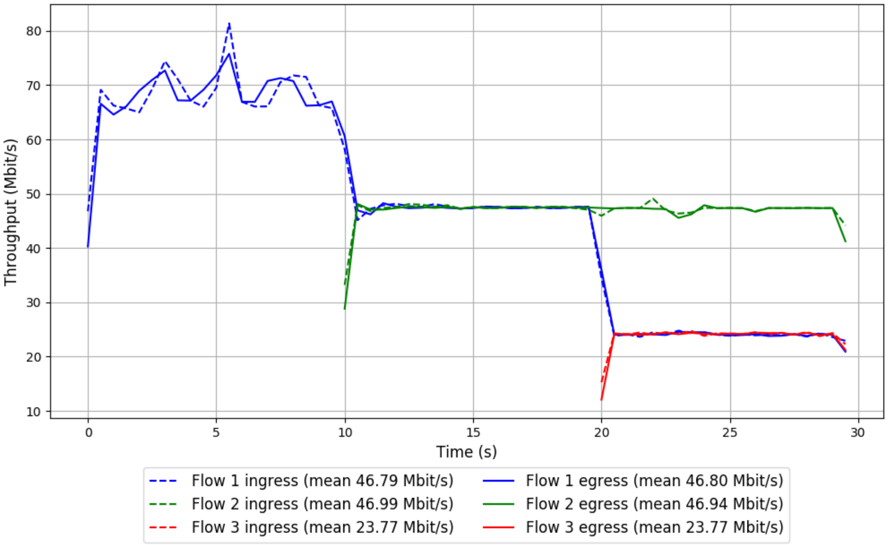
Run 1: Report of TaoVA-100x — Data Link

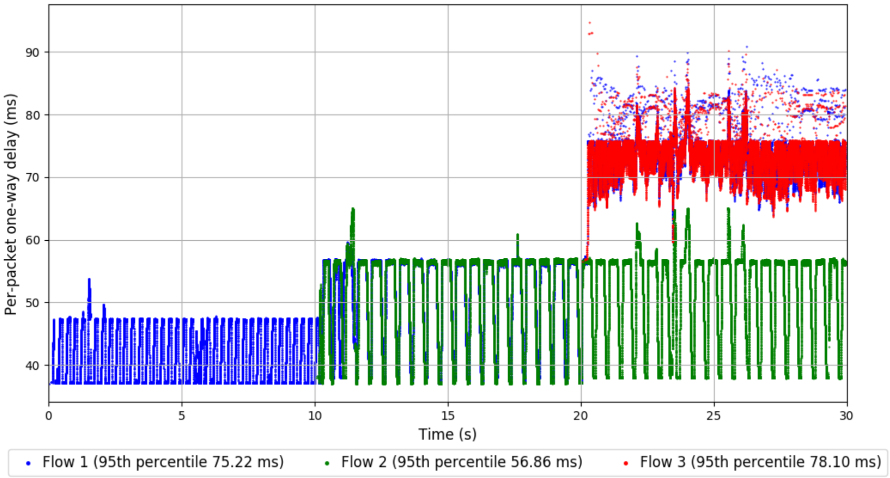




```
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-03 17:38:38
End at: 2018-04-03 17:39:08
Local clock offset: 0.517 ms
Remote clock offset: -4.461 ms

# Below is generated by plot.py at 2018-04-04 02:35:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.88 Mbit/s
95th percentile per-packet one-way delay: 75.214 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 46.80 Mbit/s
95th percentile per-packet one-way delay: 75.215 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 46.94 Mbit/s
95th percentile per-packet one-way delay: 56.859 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 23.77 Mbit/s
95th percentile per-packet one-way delay: 78.104 ms
Loss rate: 1.05%
```

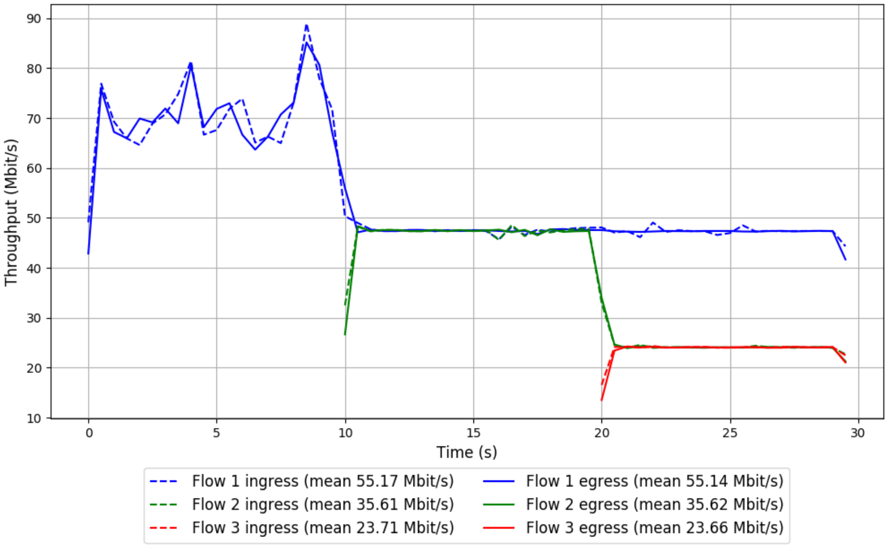
Run 2: Report of TaoVA-100x — Data Link

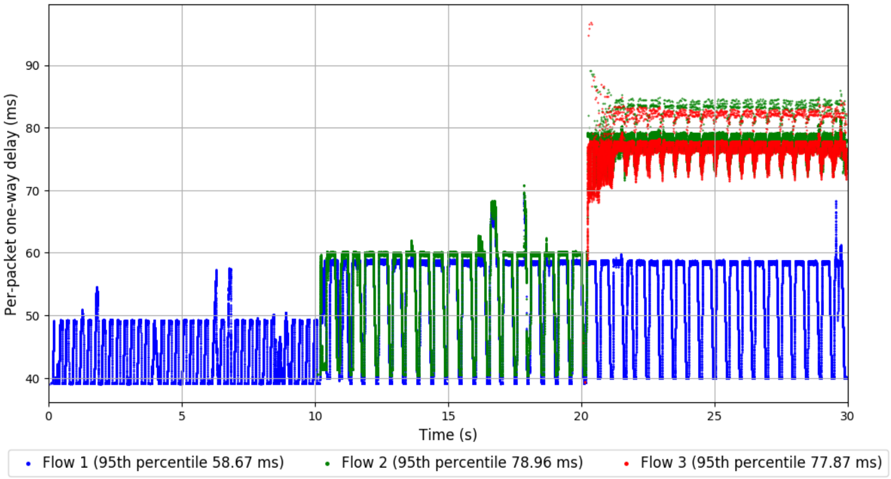




```
Run 3: Statistics of TaoVA-100x

Start at: 2018-04-03 18:03:27
End at: 2018-04-03 18:03:57
Local clock offset: 0.264 ms
Remote clock offset: -4.504 ms

# Below is generated by plot.py at 2018-04-04 02:35:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.66 Mbit/s
95th percentile per-packet one-way delay: 77.840 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 55.14 Mbit/s
95th percentile per-packet one-way delay: 58.674 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 35.62 Mbit/s
95th percentile per-packet one-way delay: 78.964 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 23.66 Mbit/s
95th percentile per-packet one-way delay: 77.866 ms
Loss rate: 1.10%
```

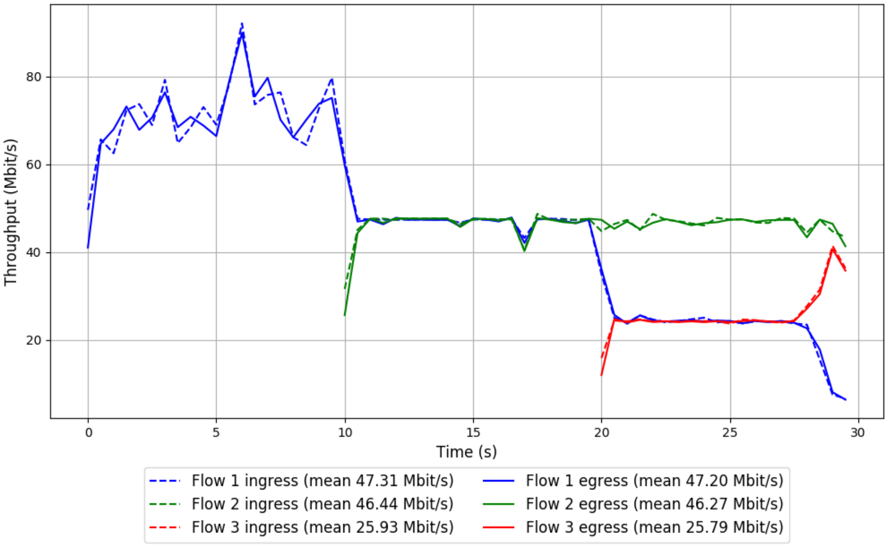
Run 3: Report of TaoVA-100x — Data Link

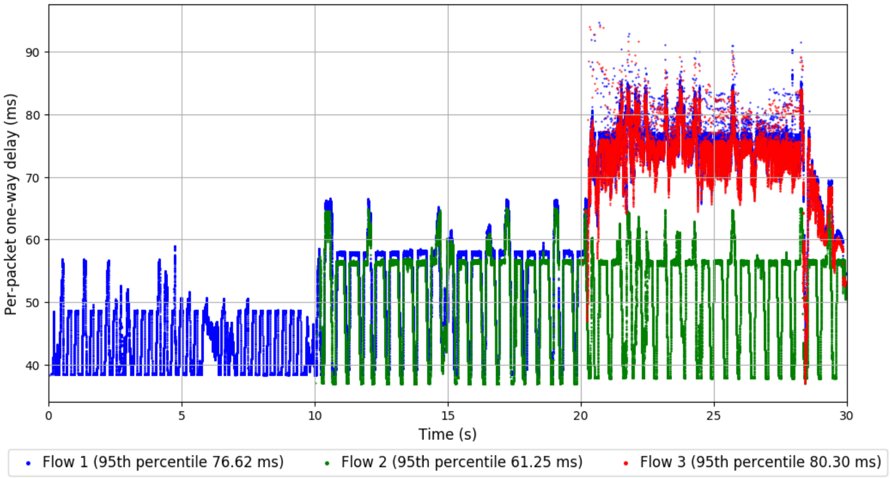




```
Run 4: Statistics of TaoVA-100x

Start at: 2018-04-03 18:28:39
End at: 2018-04-03 18:29:09
Local clock offset: 0.066 ms
Remote clock offset: -4.531 ms

# Below is generated by plot.py at 2018-04-04 02:35:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.50 Mbit/s
95th percentile per-packet one-way delay: 76.088 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 47.20 Mbit/s
95th percentile per-packet one-way delay: 76.621 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 46.27 Mbit/s
95th percentile per-packet one-way delay: 61.249 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 25.79 Mbit/s
95th percentile per-packet one-way delay: 80.301 ms
Loss rate: 1.41%
```

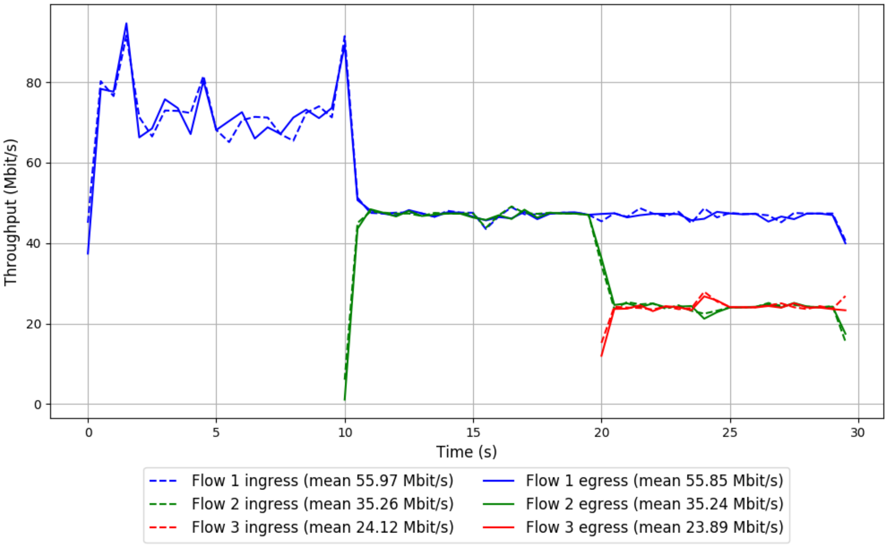
Run 4: Report of TaoVA-100x — Data Link

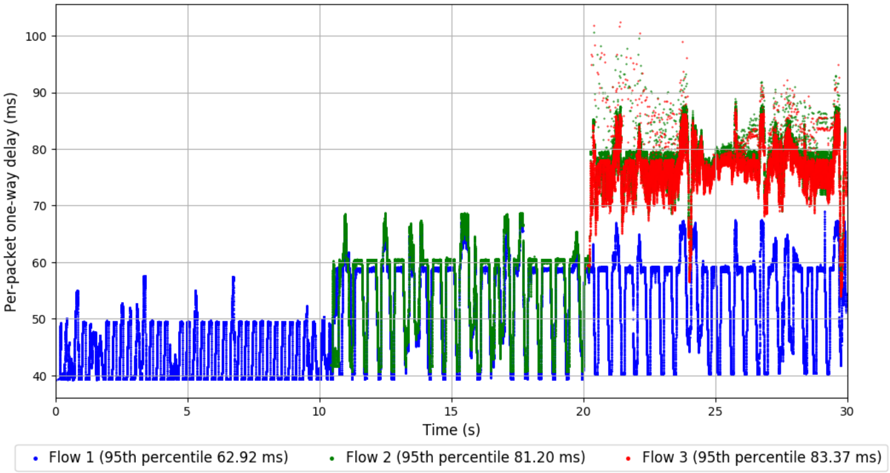




```
Run 5: Statistics of TaoVA-100x

Start at: 2018-04-03 18:53:59
End at: 2018-04-03 18:54:29
Local clock offset: -0.074 ms
Remote clock offset: -8.064 ms

# Below is generated by plot.py at 2018-04-04 02:35:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.82 Mbit/s
95th percentile per-packet one-way delay: 79.138 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 55.85 Mbit/s
95th percentile per-packet one-way delay: 62.924 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 35.24 Mbit/s
95th percentile per-packet one-way delay: 81.197 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 23.89 Mbit/s
95th percentile per-packet one-way delay: 83.368 ms
Loss rate: 1.79%
```

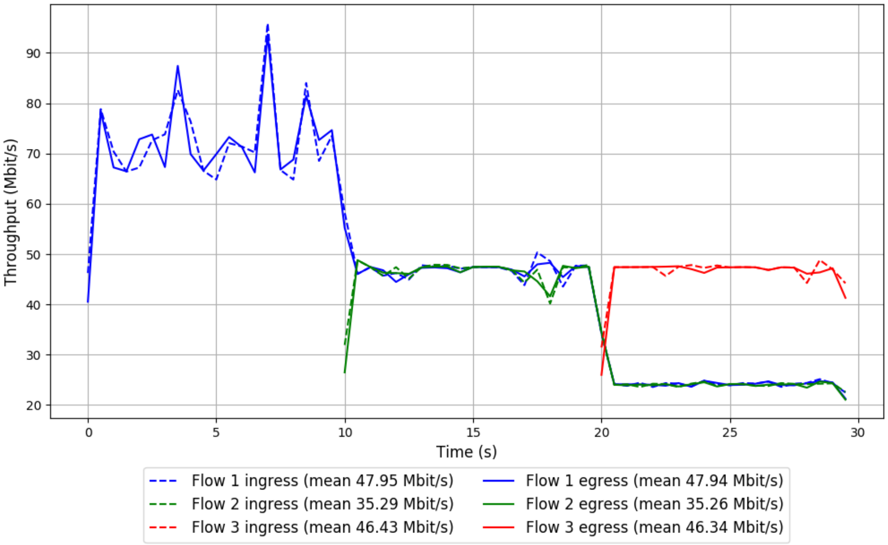
Run 5: Report of TaoVA-100x — Data Link

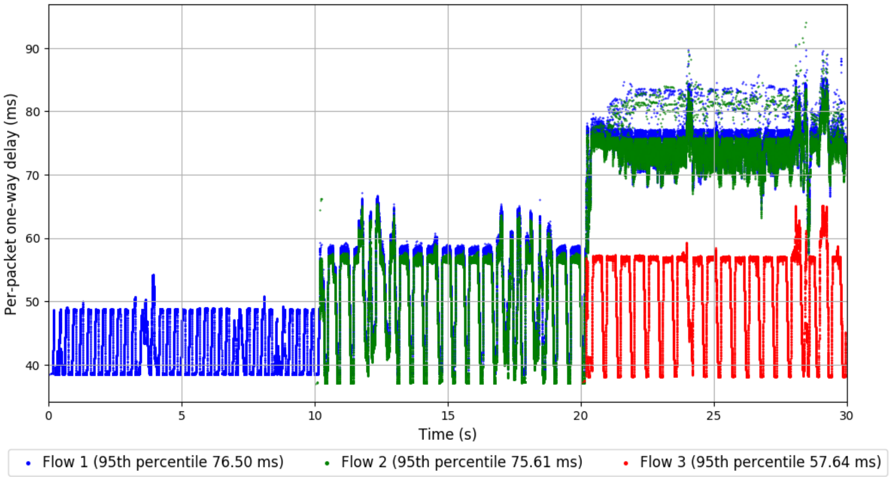




```
Run 6: Statistics of TaoVA-100x

Start at: 2018-04-03 19:19:14
End at: 2018-04-03 19:19:44
Local clock offset: -0.386 ms
Remote clock offset: -3.043 ms

# Below is generated by plot.py at 2018-04-04 02:35:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.72 Mbit/s
95th percentile per-packet one-way delay: 75.749 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 47.94 Mbit/s
95th percentile per-packet one-way delay: 76.496 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 35.26 Mbit/s
95th percentile per-packet one-way delay: 75.607 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 46.34 Mbit/s
95th percentile per-packet one-way delay: 57.643 ms
Loss rate: 0.98%
```

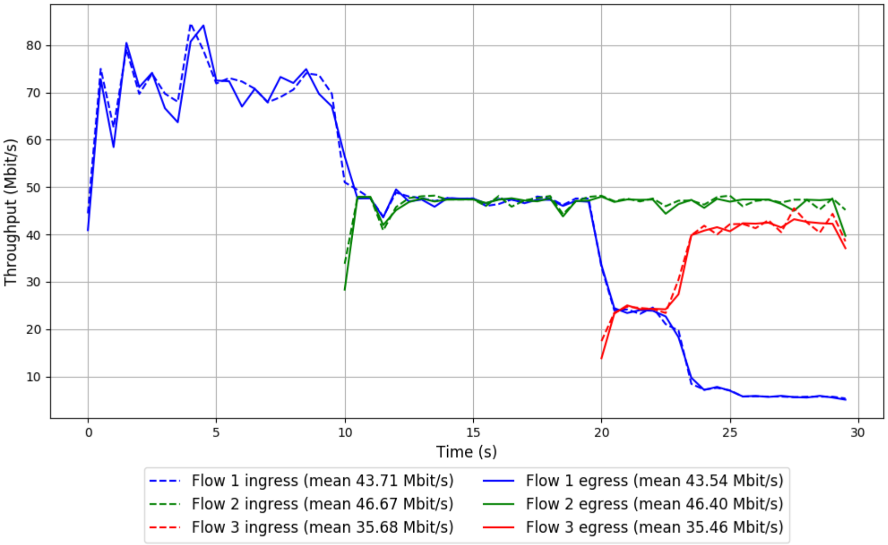
Run 6: Report of TaoVA-100x — Data Link

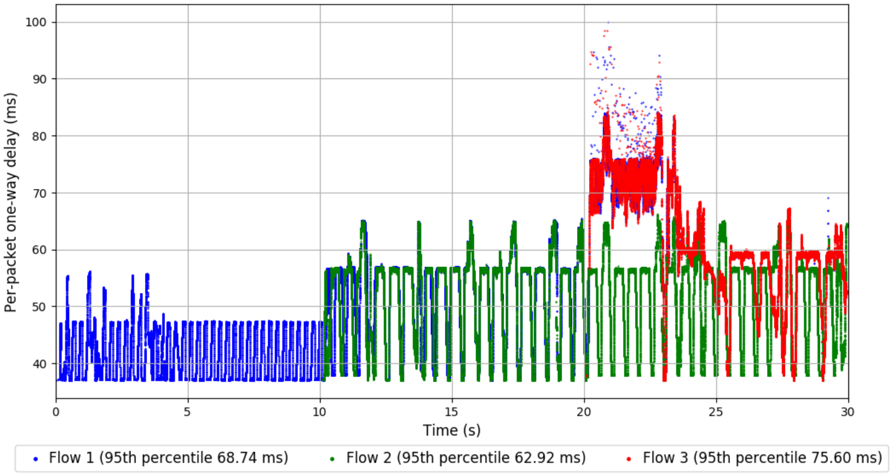




```
Run 7: Statistics of TaoVA-100x

Start at: 2018-04-03 19:44:18
End at: 2018-04-03 19:44:48
Local clock offset: -0.017 ms
Remote clock offset: -3.115 ms

# Below is generated by plot.py at 2018-04-04 02:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.14 Mbit/s
95th percentile per-packet one-way delay: 69.191 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 43.54 Mbit/s
95th percentile per-packet one-way delay: 68.739 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 46.40 Mbit/s
95th percentile per-packet one-way delay: 62.921 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 35.46 Mbit/s
95th percentile per-packet one-way delay: 75.604 ms
Loss rate: 1.30%
```

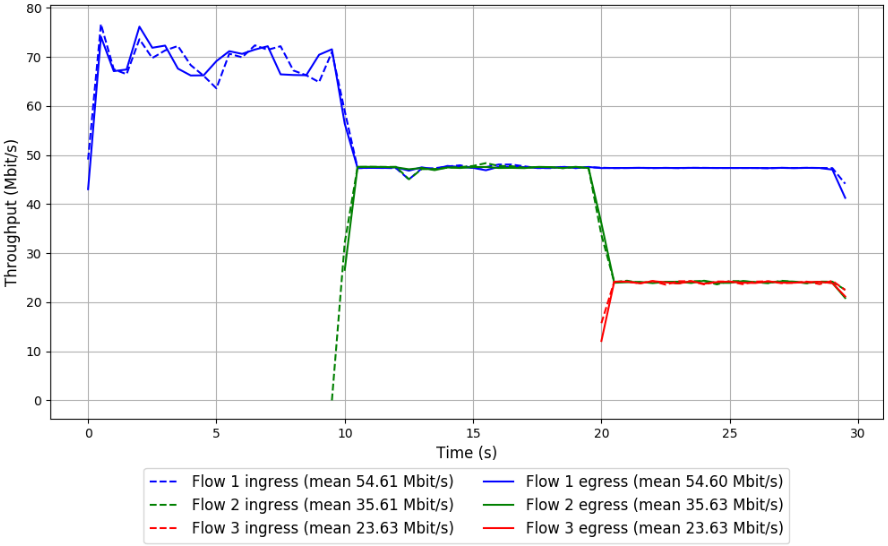
Run 7: Report of TaoVA-100x — Data Link

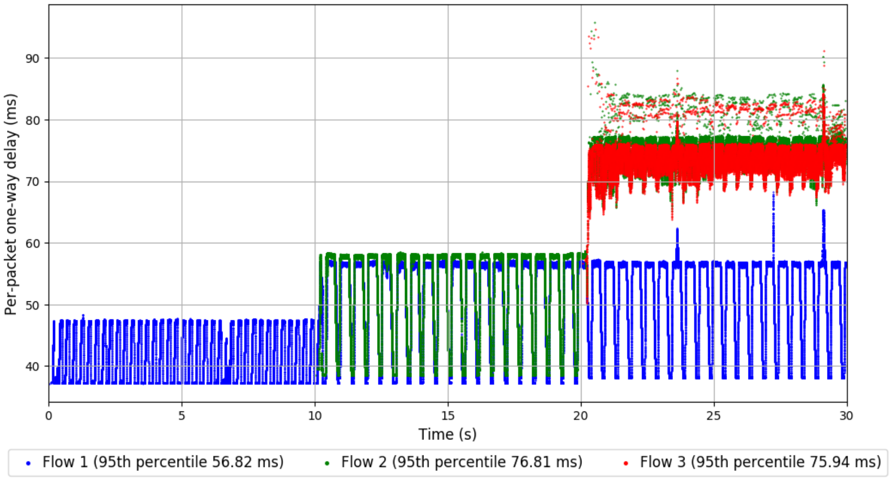




```
Run 8: Statistics of TaoVA-100x

Start at: 2018-04-03 20:09:20
End at: 2018-04-03 20:09:50
Local clock offset: 0.465 ms
Remote clock offset: -2.469 ms

# Below is generated by plot.py at 2018-04-04 02:35:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.11 Mbit/s
95th percentile per-packet one-way delay: 75.639 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 54.60 Mbit/s
95th percentile per-packet one-way delay: 56.823 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 35.63 Mbit/s
95th percentile per-packet one-way delay: 76.806 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 23.63 Mbit/s
95th percentile per-packet one-way delay: 75.939 ms
Loss rate: 1.05%
```

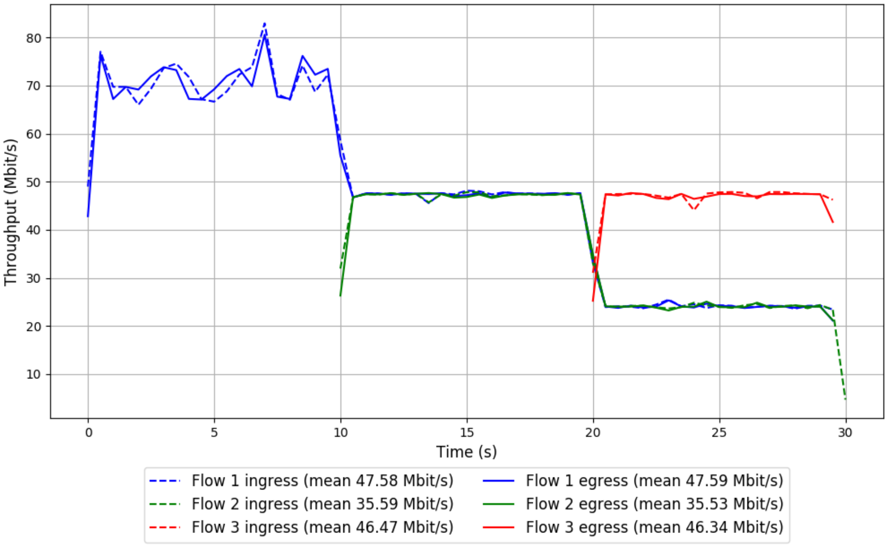
Run 8: Report of TaoVA-100x — Data Link

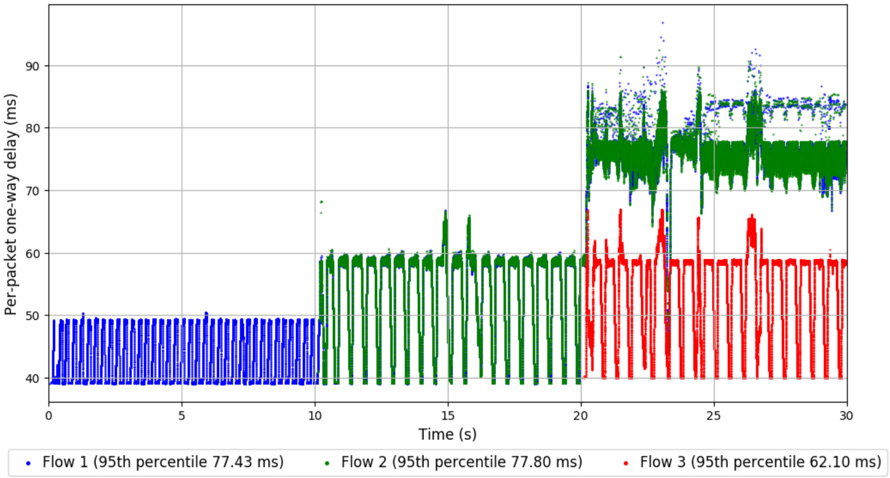




```
Run 9: Statistics of TaoVA-100x

Start at: 2018-04-03 20:34:13
End at: 2018-04-03 20:34:43
Local clock offset: 0.919 ms
Remote clock offset: -3.279 ms

# Below is generated by plot.py at 2018-04-04 02:37:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.55 Mbit/s
95th percentile per-packet one-way delay: 77.486 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 47.59 Mbit/s
95th percentile per-packet one-way delay: 77.434 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 35.53 Mbit/s
95th percentile per-packet one-way delay: 77.799 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 46.34 Mbit/s
95th percentile per-packet one-way delay: 62.102 ms
Loss rate: 1.26%
```

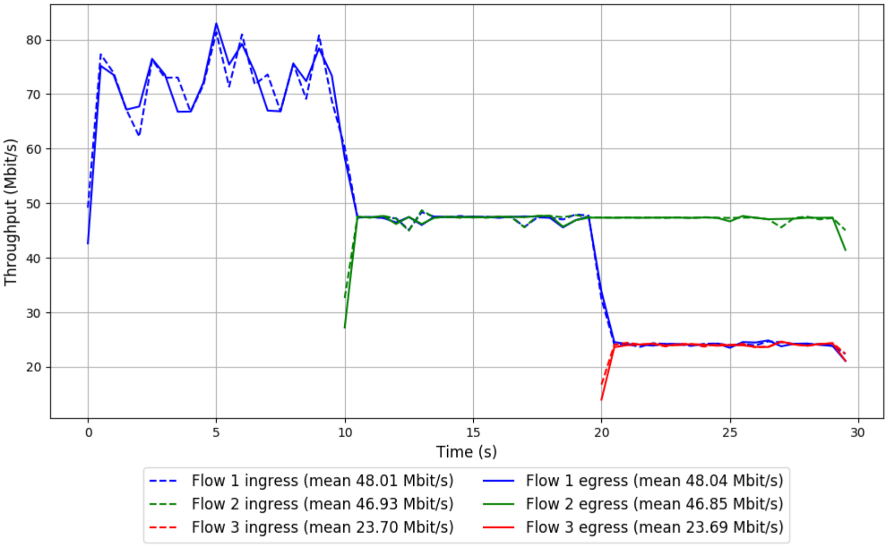
Run 9: Report of TaoVA-100x — Data Link

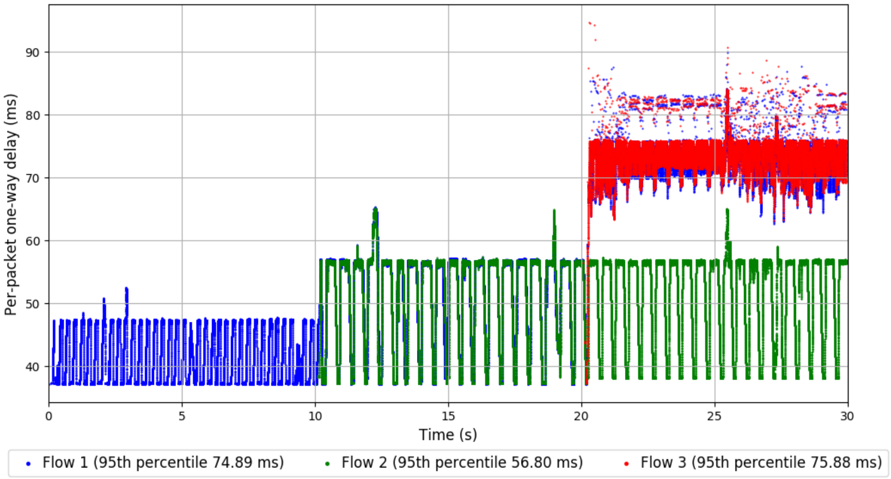




```
Run 10: Statistics of TaoVA-100x

Start at: 2018-04-03 20:59:30
End at: 2018-04-03 21:00:00
Local clock offset: 0.69 ms
Remote clock offset: -2.304 ms

# Below is generated by plot.py at 2018-04-04 02:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.03 Mbit/s
95th percentile per-packet one-way delay: 75.222 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 48.04 Mbit/s
95th percentile per-packet one-way delay: 74.888 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 46.85 Mbit/s
95th percentile per-packet one-way delay: 56.805 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 23.69 Mbit/s
95th percentile per-packet one-way delay: 75.877 ms
Loss rate: 1.08%
```

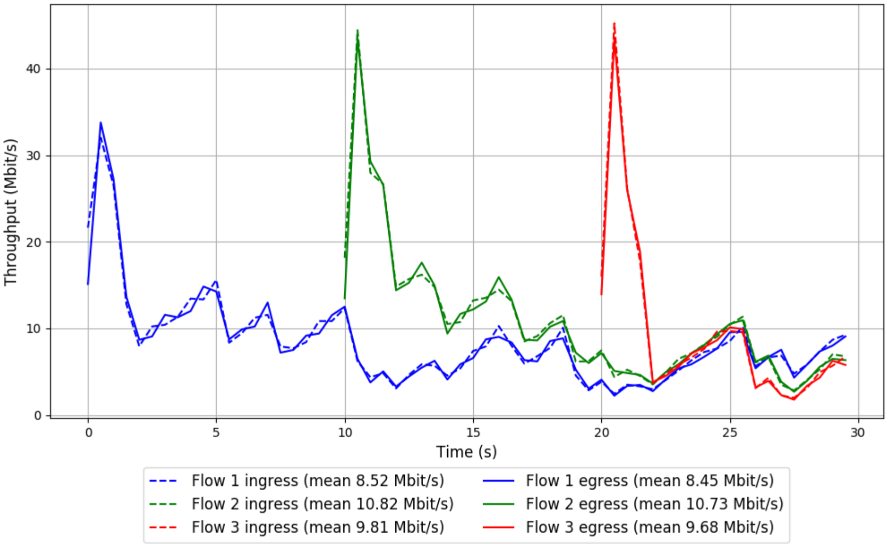
Run 10: Report of TaoVA-100x — Data Link

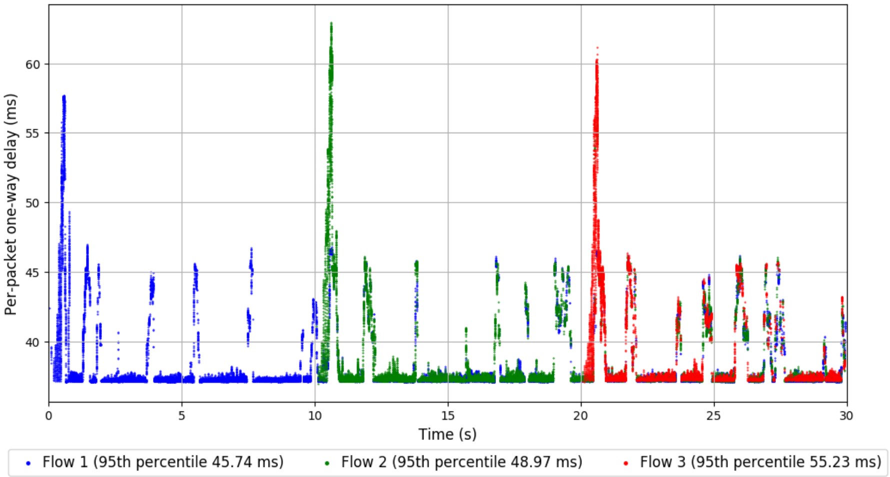




```
Run 1: Statistics of TCP Vegas

Start at: 2018-04-03 17:07:39
End at: 2018-04-03 17:08:09
Local clock offset: 0.388 ms
Remote clock offset: -2.054 ms

# Below is generated by plot.py at 2018-04-04 02:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.77 Mbit/s
95th percentile per-packet one-way delay: 47.896 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 45.742 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 10.73 Mbit/s
95th percentile per-packet one-way delay: 48.972 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 9.68 Mbit/s
95th percentile per-packet one-way delay: 55.232 ms
Loss rate: 2.01%
```

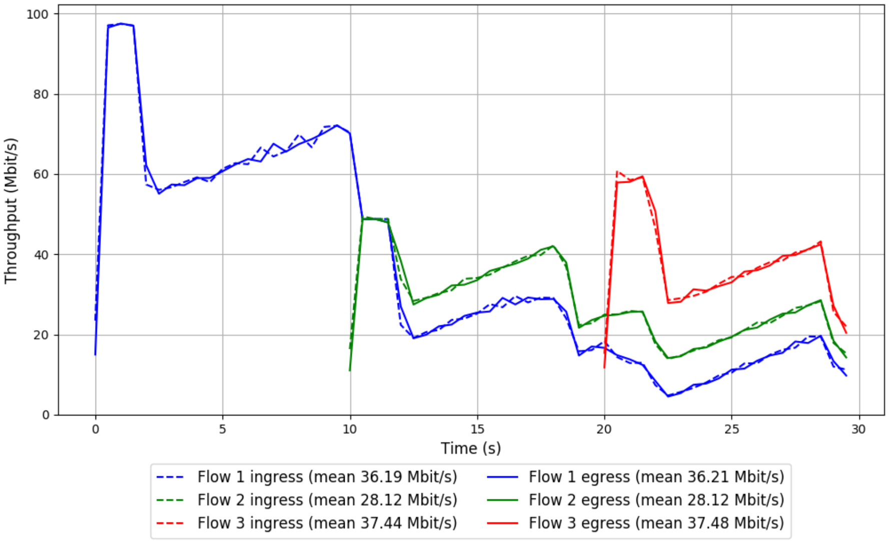
Run 1: Report of TCP Vegas — Data Link

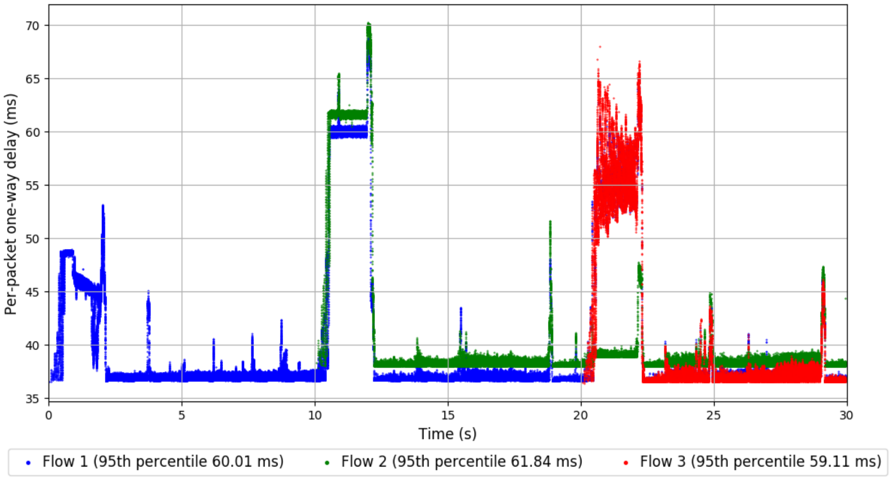




```
Run 2: Statistics of TCP Vegas

Start at: 2018-04-03 17:33:07
End at: 2018-04-03 17:33:37
Local clock offset: 0.482 ms
Remote clock offset: -3.657 ms

# Below is generated by plot.py at 2018-04-04 02:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.28 Mbit/s
95th percentile per-packet one-way delay: 60.519 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 36.21 Mbit/s
95th percentile per-packet one-way delay: 60.011 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 28.12 Mbit/s
95th percentile per-packet one-way delay: 61.845 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 37.48 Mbit/s
95th percentile per-packet one-way delay: 59.109 ms
Loss rate: 0.55%
```

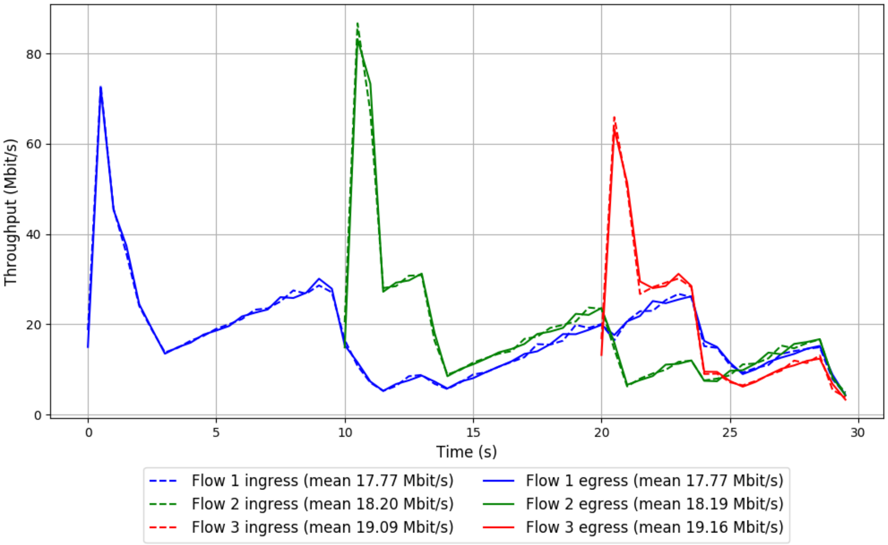
Run 2: Report of TCP Vegas — Data Link

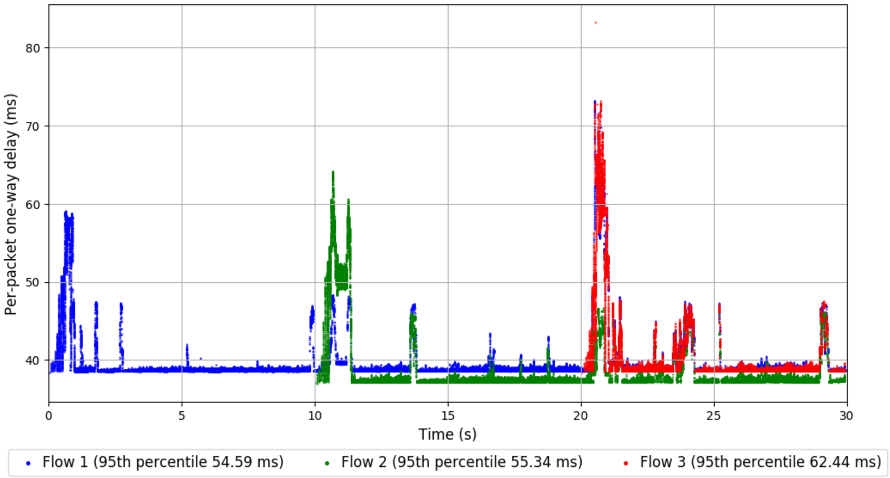




```
Run 3: Statistics of TCP Vegas

Start at: 2018-04-03 17:57:59
End at: 2018-04-03 17:58:29
Local clock offset: 0.314 ms
Remote clock offset: -2.761 ms

# Below is generated by plot.py at 2018-04-04 02:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.18 Mbit/s
95th percentile per-packet one-way delay: 56.716 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 17.77 Mbit/s
95th percentile per-packet one-way delay: 54.589 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 18.19 Mbit/s
95th percentile per-packet one-way delay: 55.337 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 19.16 Mbit/s
95th percentile per-packet one-way delay: 62.441 ms
Loss rate: 0.33%
```

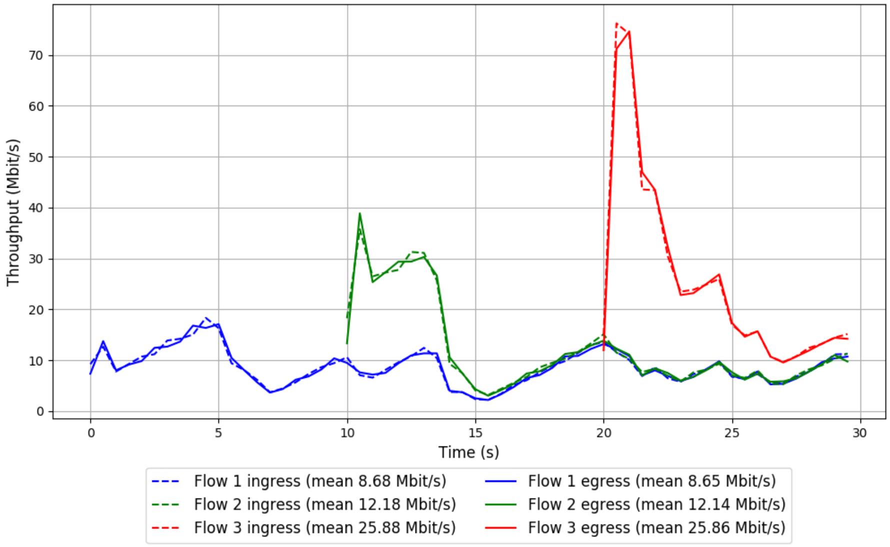
Run 3: Report of TCP Vegas — Data Link

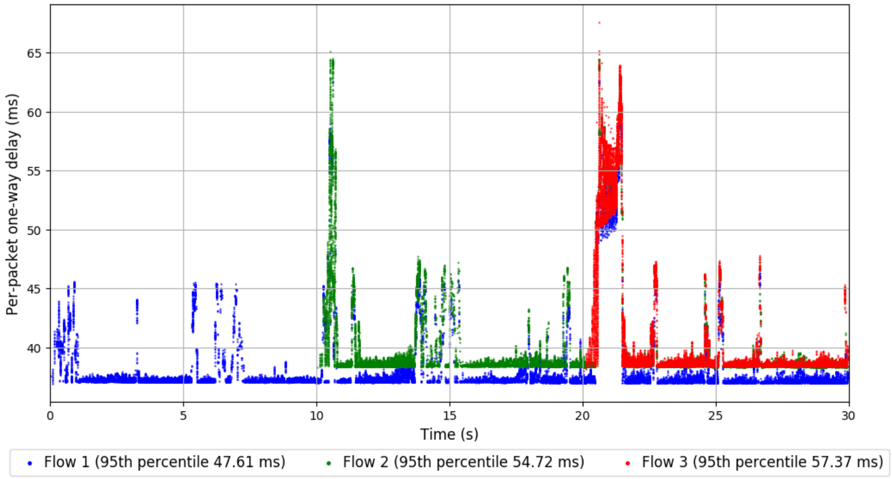




```
Run 4: Statistics of TCP Vegas

Start at: 2018-04-03 18:23:02
End at: 2018-04-03 18:23:32
Local clock offset: 0.237 ms
Remote clock offset: -3.322 ms

# Below is generated by plot.py at 2018-04-04 02:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.26 Mbit/s
95th percentile per-packet one-way delay: 55.338 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 8.65 Mbit/s
95th percentile per-packet one-way delay: 47.611 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 12.14 Mbit/s
95th percentile per-packet one-way delay: 54.722 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 25.86 Mbit/s
95th percentile per-packet one-way delay: 57.370 ms
Loss rate: 0.79%
```

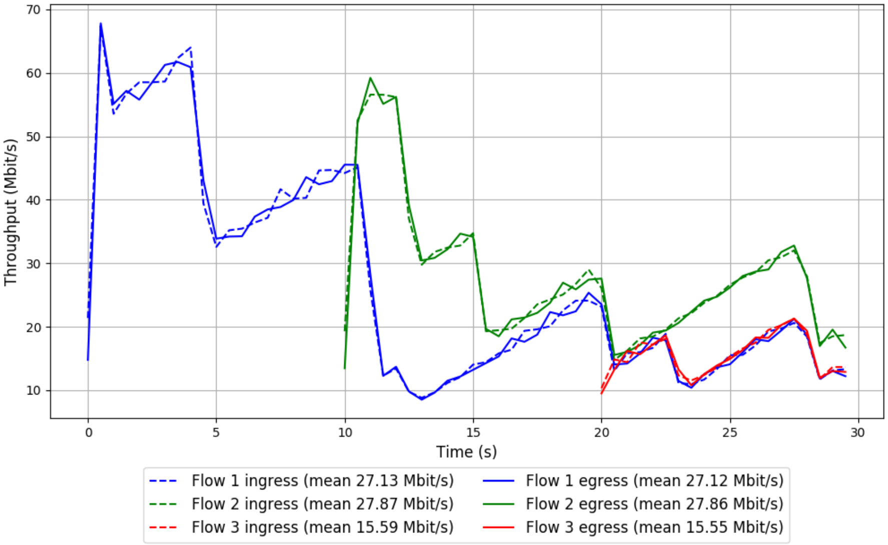
Run 4: Report of TCP Vegas — Data Link

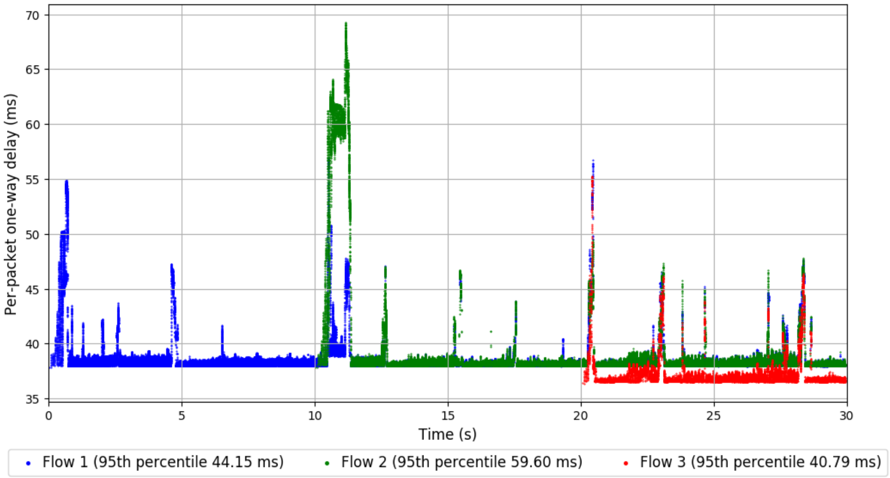




```
Run 5: Statistics of TCP Vegas

Start at: 2018-04-03 18:48:18
End at: 2018-04-03 18:48:48
Local clock offset: -0.047 ms
Remote clock offset: -5.536 ms

# Below is generated by plot.py at 2018-04-04 02:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.78 Mbit/s
95th percentile per-packet one-way delay: 46.261 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 27.12 Mbit/s
95th percentile per-packet one-way delay: 44.151 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 27.86 Mbit/s
95th percentile per-packet one-way delay: 59.598 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 15.55 Mbit/s
95th percentile per-packet one-way delay: 40.789 ms
Loss rate: 0.97%
```

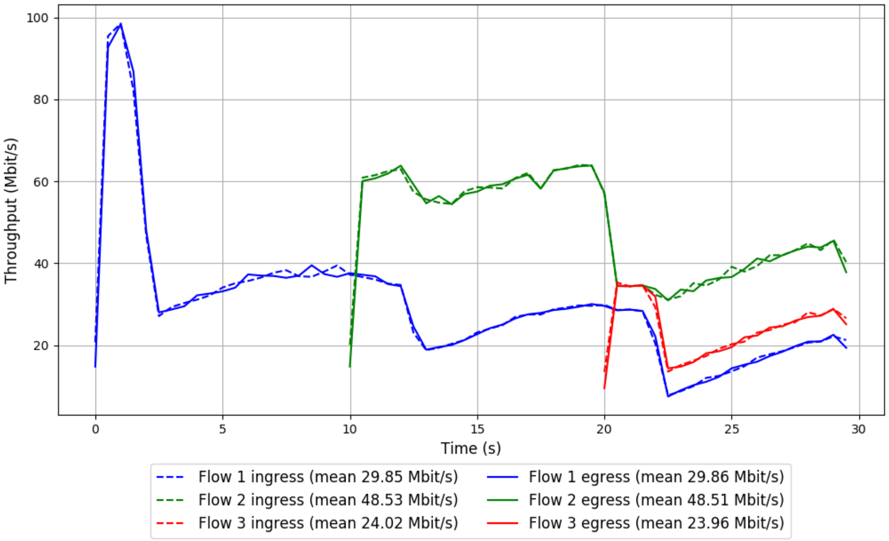
Run 5: Report of TCP Vegas — Data Link

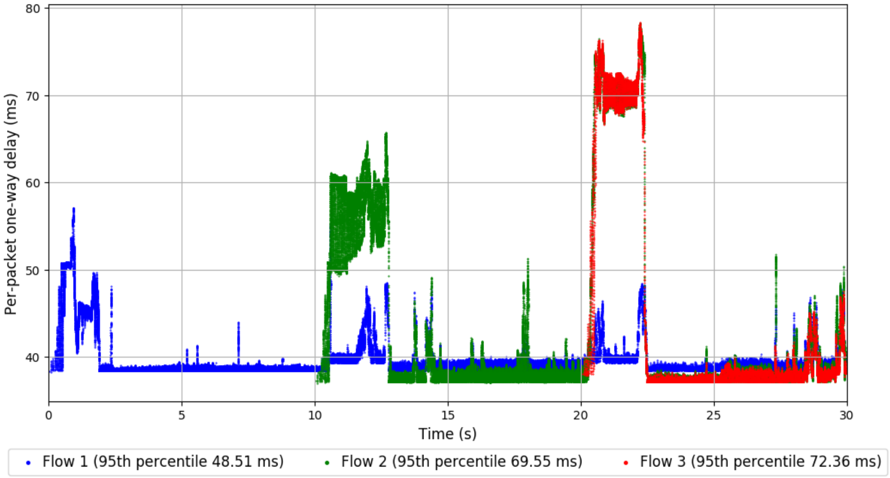




```
Run 6: Statistics of TCP Vegas

Start at: 2018-04-03 19:13:42
End at: 2018-04-03 19:14:12
Local clock offset: -0.288 ms
Remote clock offset: -3.153 ms

# Below is generated by plot.py at 2018-04-04 02:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.04 Mbit/s
95th percentile per-packet one-way delay: 69.186 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 29.86 Mbit/s
95th percentile per-packet one-way delay: 48.507 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 48.51 Mbit/s
95th percentile per-packet one-way delay: 69.547 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 23.96 Mbit/s
95th percentile per-packet one-way delay: 72.361 ms
Loss rate: 0.95%
```

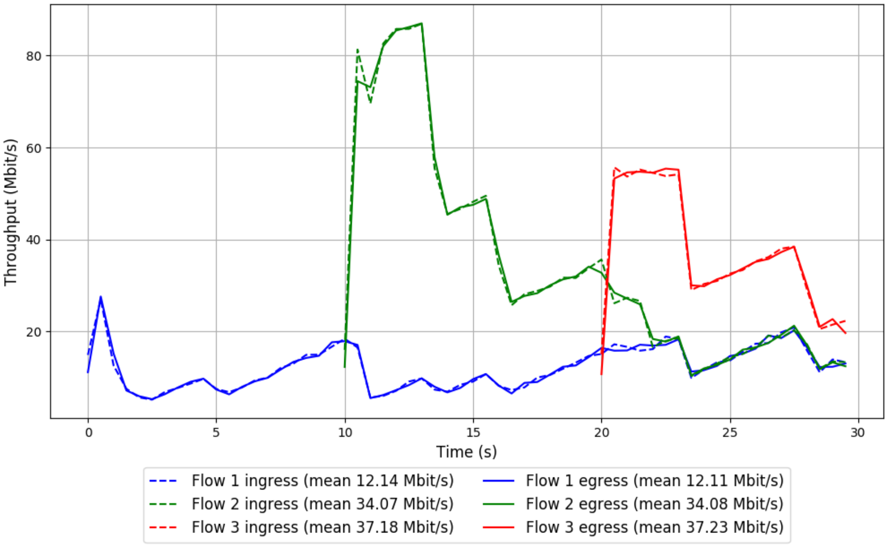
Run 6: Report of TCP Vegas — Data Link

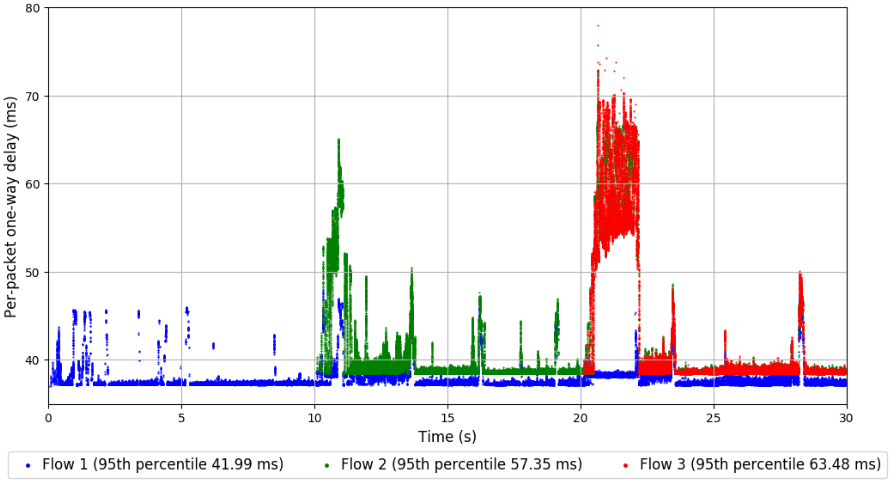




```
Run 7: Statistics of TCP Vegas

Start at: 2018-04-03 19:38:49
End at: 2018-04-03 19:39:19
Local clock offset: -0.123 ms
Remote clock offset: -3.076 ms

# Below is generated by plot.py at 2018-04-04 02:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.08 Mbit/s
95th percentile per-packet one-way delay: 58.332 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 12.11 Mbit/s
95th percentile per-packet one-way delay: 41.995 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 34.08 Mbit/s
95th percentile per-packet one-way delay: 57.350 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 37.23 Mbit/s
95th percentile per-packet one-way delay: 63.485 ms
Loss rate: 0.57%
```

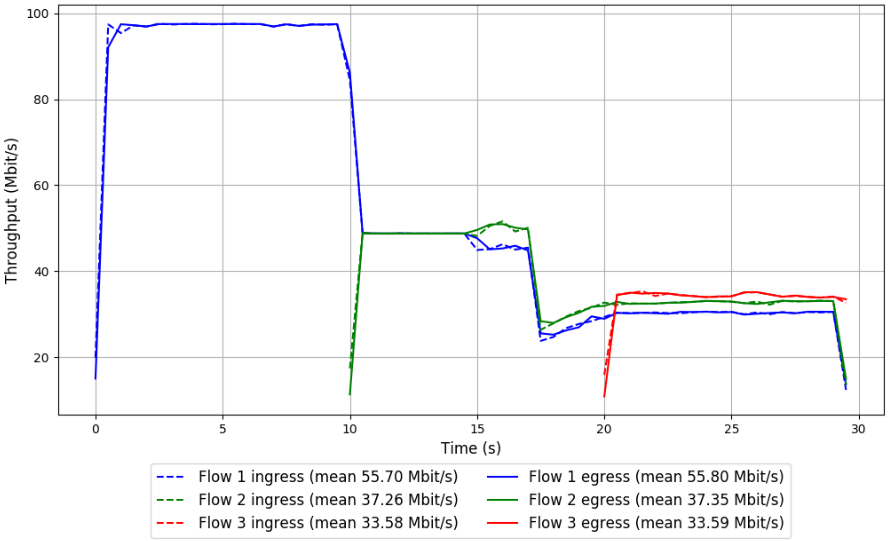
Run 7: Report of TCP Vegas — Data Link

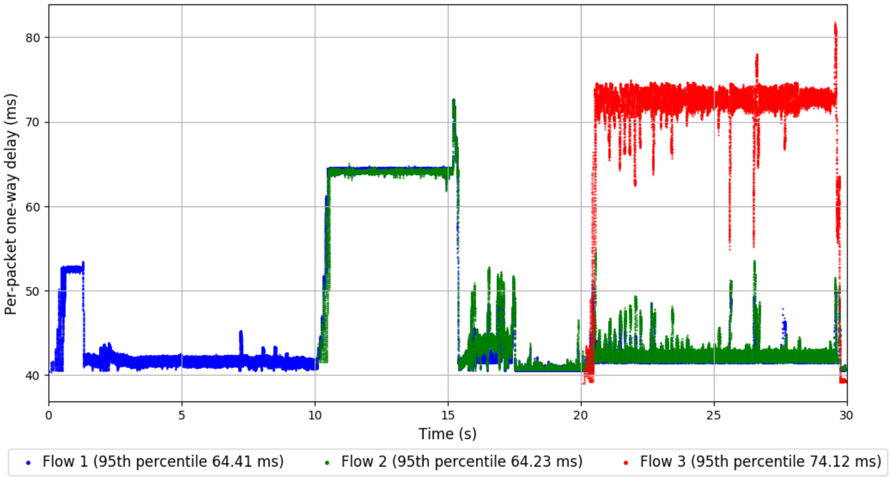




```
Run 8: Statistics of TCP Vegas

Start at: 2018-04-03 20:03:47
End at: 2018-04-03 20:04:17
Local clock offset: 0.172 ms
Remote clock offset: -4.979 ms

# Below is generated by plot.py at 2018-04-04 02:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.75 Mbit/s
95th percentile per-packet one-way delay: 72.815 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 55.80 Mbit/s
95th percentile per-packet one-way delay: 64.412 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 37.35 Mbit/s
95th percentile per-packet one-way delay: 64.233 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 33.59 Mbit/s
95th percentile per-packet one-way delay: 74.124 ms
Loss rate: 0.62%
```

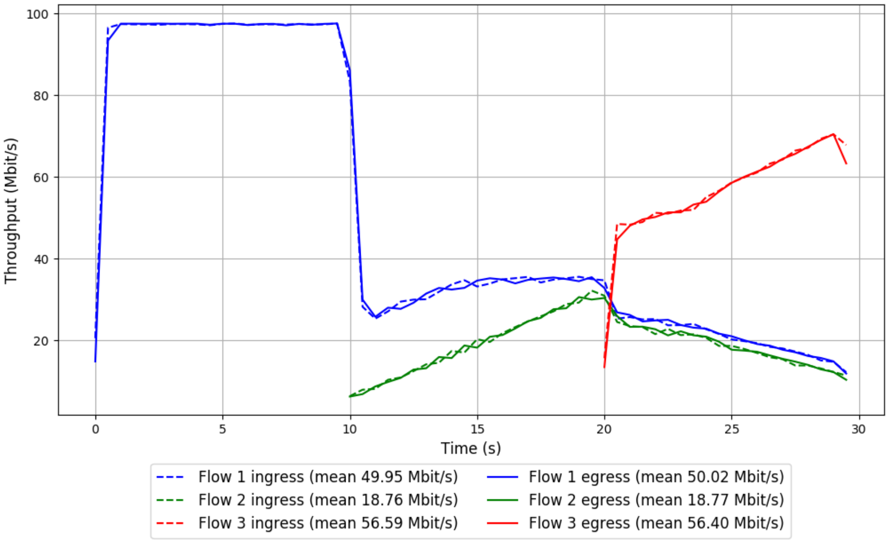
Run 8: Report of TCP Vegas — Data Link

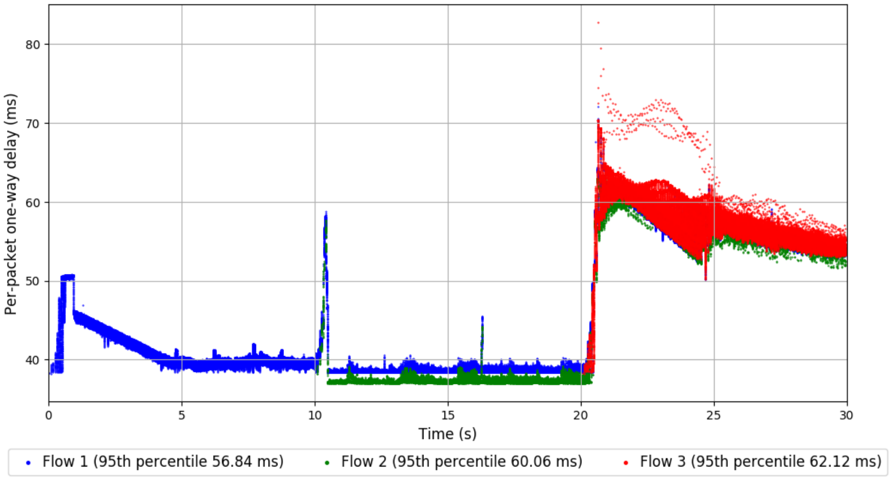




```
Run 9: Statistics of TCP Vegas

Start at: 2018-04-03 20:28:43
End at: 2018-04-03 20:29:13
Local clock offset: 0.763 ms
Remote clock offset: -1.327 ms

# Below is generated by plot.py at 2018-04-04 02:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.15 Mbit/s
95th percentile per-packet one-way delay: 60.671 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 50.02 Mbit/s
95th percentile per-packet one-way delay: 56.838 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 18.77 Mbit/s
95th percentile per-packet one-way delay: 60.057 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 56.40 Mbit/s
95th percentile per-packet one-way delay: 62.124 ms
Loss rate: 1.10%
```

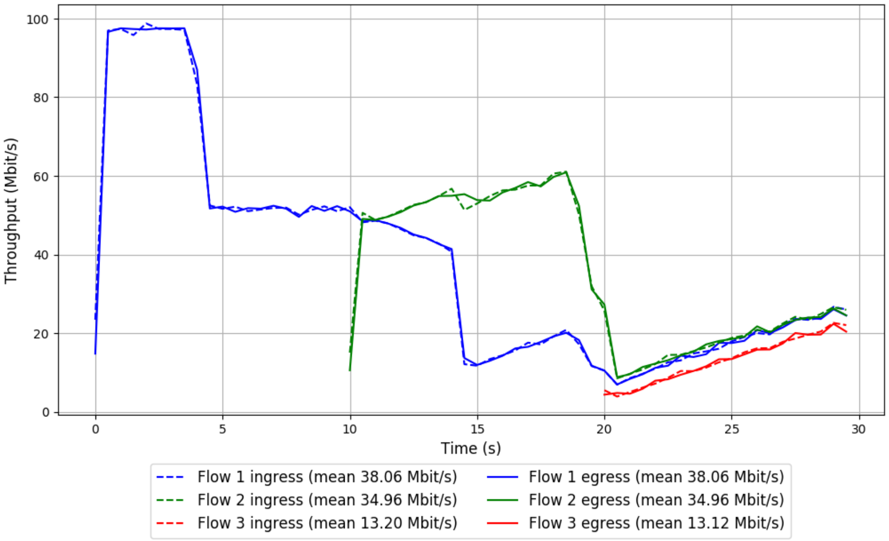
Run 9: Report of TCP Vegas — Data Link

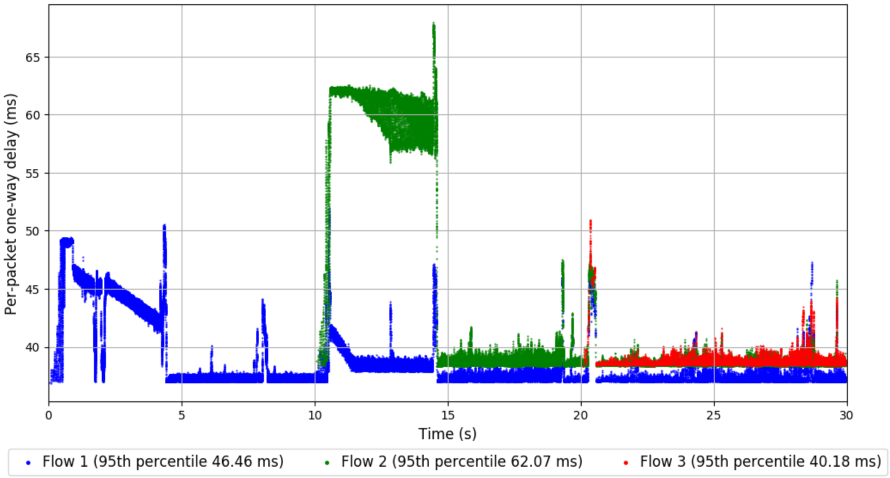




```
Run 10: Statistics of TCP Vegas

Start at: 2018-04-03 20:53:58
End at: 2018-04-03 20:54:28
Local clock offset: 0.586 ms
Remote clock offset: -2.055 ms

# Below is generated by plot.py at 2018-04-04 02:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.64 Mbit/s
95th percentile per-packet one-way delay: 61.331 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 38.06 Mbit/s
95th percentile per-packet one-way delay: 46.459 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 34.96 Mbit/s
95th percentile per-packet one-way delay: 62.068 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 40.179 ms
Loss rate: 1.33%
```

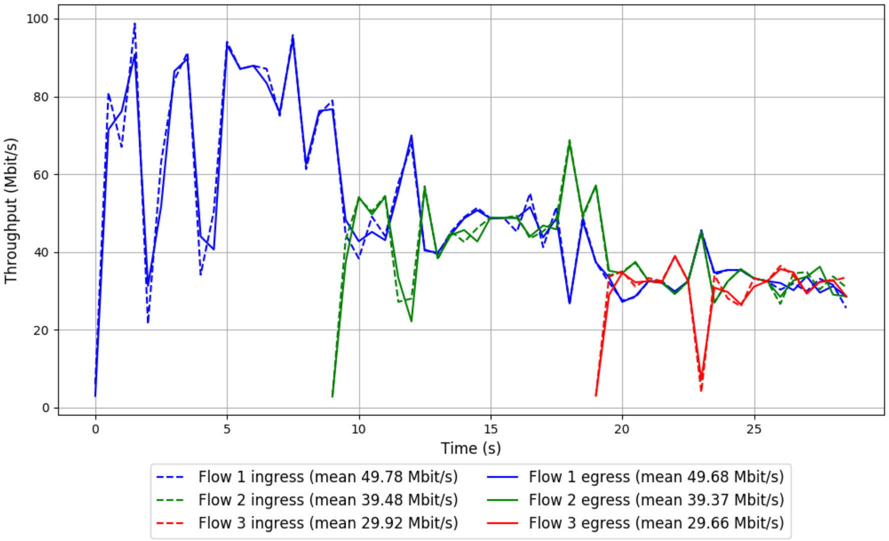
Run 10: Report of TCP Vegas — Data Link

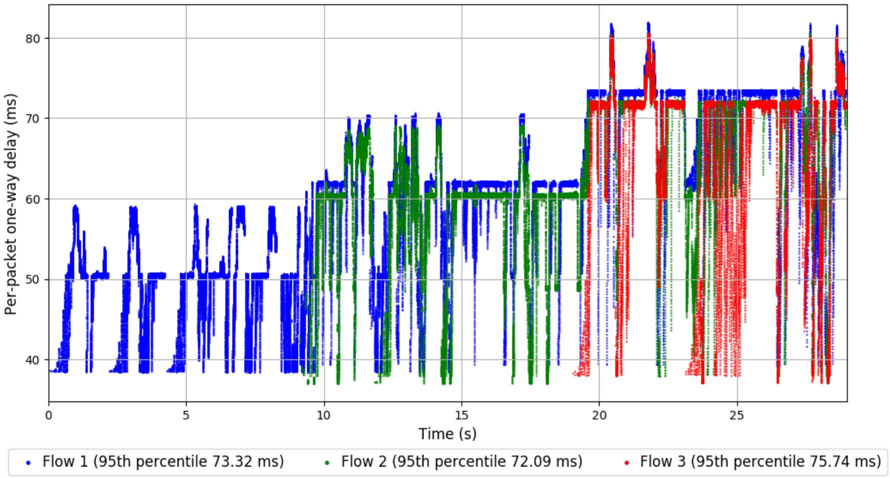




```
Run 1: Statistics of Verus

Start at: 2018-04-03 17:20:30
End at: 2018-04-03 17:21:00
Local clock offset: 0.408 ms
Remote clock offset: -3.365 ms

# Below is generated by plot.py at 2018-04-04 02:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.90 Mbit/s
95th percentile per-packet one-way delay: 73.322 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 49.68 Mbit/s
95th percentile per-packet one-way delay: 73.316 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 39.37 Mbit/s
95th percentile per-packet one-way delay: 72.089 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 29.66 Mbit/s
95th percentile per-packet one-way delay: 75.740 ms
Loss rate: 1.66%
```

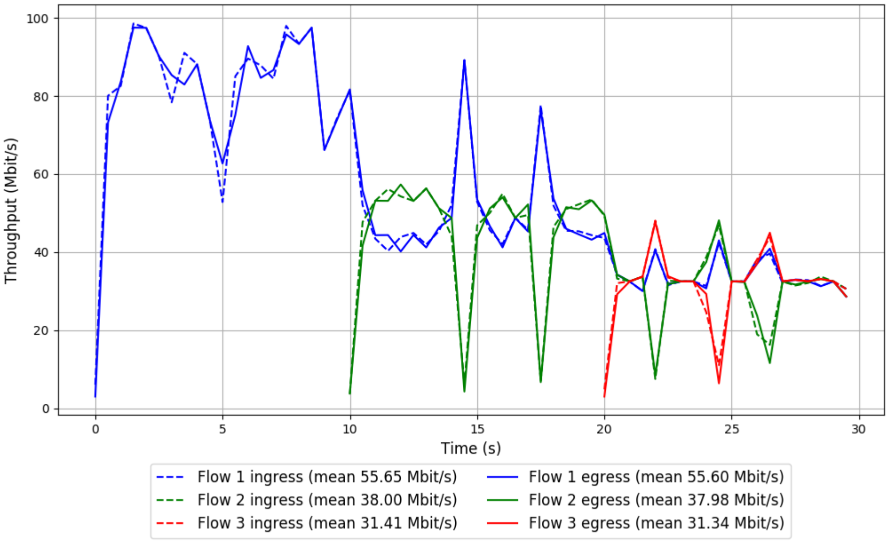
Run 1: Report of Verus — Data Link

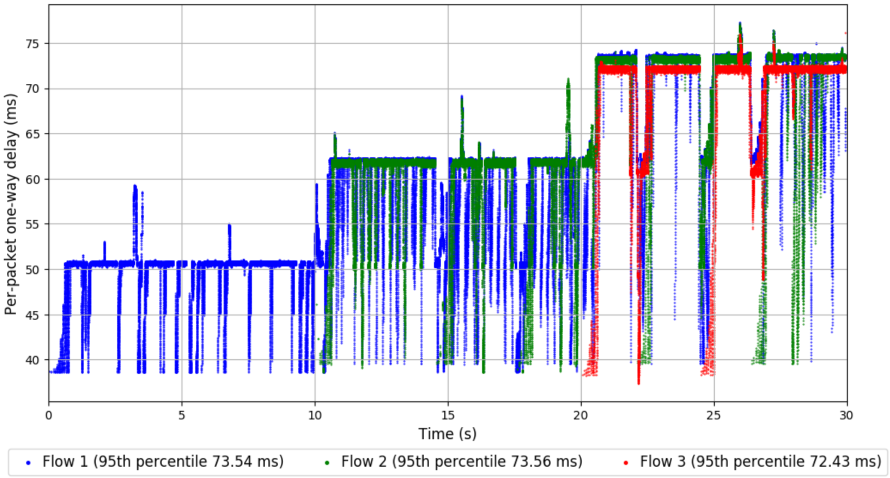




```
Run 2: Statistics of Verus

Start at: 2018-04-03 17:45:33
End at: 2018-04-03 17:46:03
Local clock offset: 0.536 ms
Remote clock offset: -4.529 ms

# Below is generated by plot.py at 2018-04-04 02:38:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.21 Mbit/s
95th percentile per-packet one-way delay: 73.526 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 55.60 Mbit/s
95th percentile per-packet one-way delay: 73.537 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 37.98 Mbit/s
95th percentile per-packet one-way delay: 73.555 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 31.34 Mbit/s
95th percentile per-packet one-way delay: 72.432 ms
Loss rate: 1.06%
```

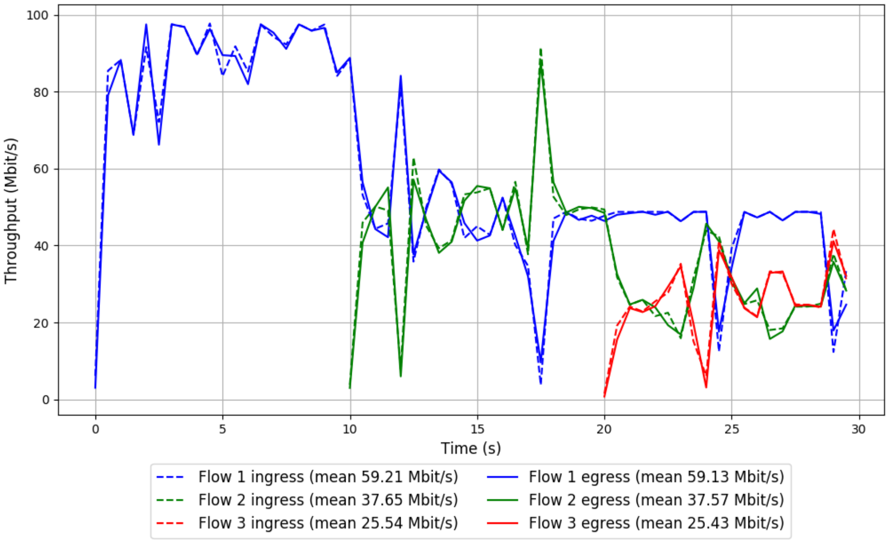
Run 2: Report of Verus — Data Link

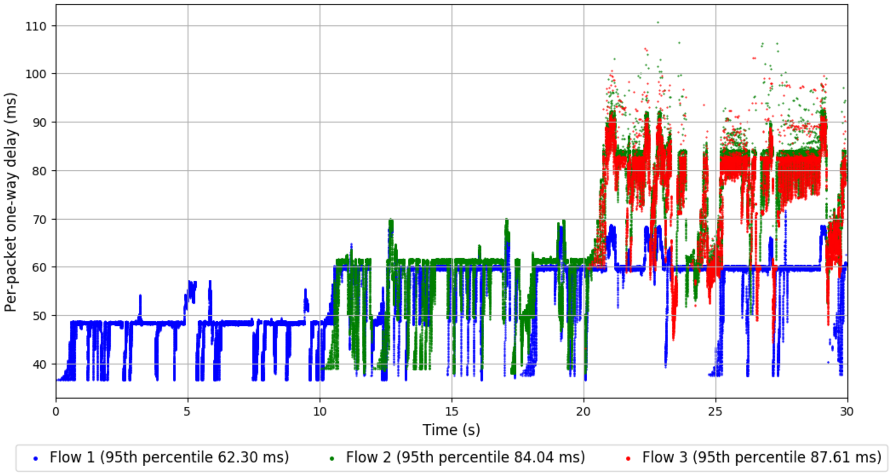




```
Run 3: Statistics of Verus

Start at: 2018-04-03 18:10:23
End at: 2018-04-03 18:10:53
Local clock offset: 0.173 ms
Remote clock offset: -1.852 ms

# Below is generated by plot.py at 2018-04-04 02:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.50 Mbit/s
95th percentile per-packet one-way delay: 82.546 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 59.13 Mbit/s
95th percentile per-packet one-way delay: 62.300 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 37.57 Mbit/s
95th percentile per-packet one-way delay: 84.044 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 25.43 Mbit/s
95th percentile per-packet one-way delay: 87.607 ms
Loss rate: 1.40%
```

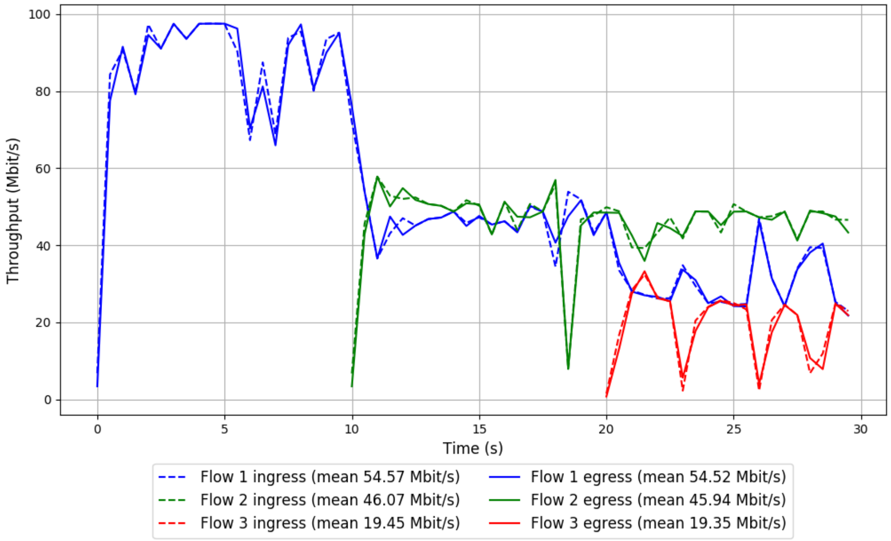
Run 3: Report of Verus — Data Link

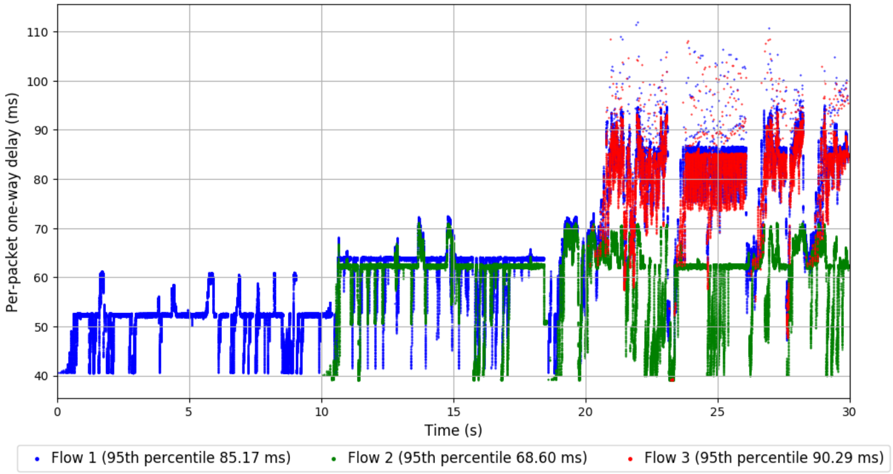




```
Run 4: Statistics of Verus

Start at: 2018-04-03 18:35:34
End at: 2018-04-03 18:36:04
Local clock offset: -0.045 ms
Remote clock offset: -7.348 ms

# Below is generated by plot.py at 2018-04-04 02:38:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.44 Mbit/s
95th percentile per-packet one-way delay: 84.926 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 54.52 Mbit/s
95th percentile per-packet one-way delay: 85.172 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 45.94 Mbit/s
95th percentile per-packet one-way delay: 68.604 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 19.35 Mbit/s
95th percentile per-packet one-way delay: 90.286 ms
Loss rate: 1.68%
```

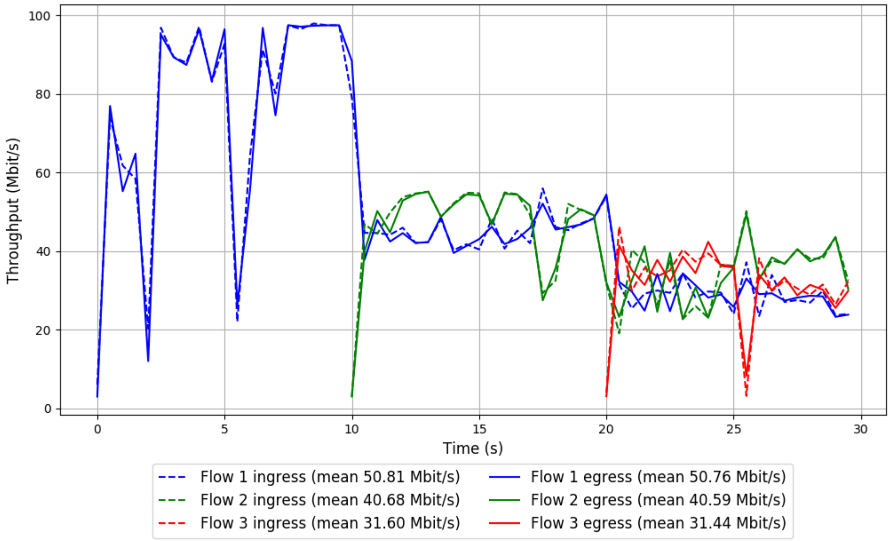
Run 4: Report of Verus — Data Link

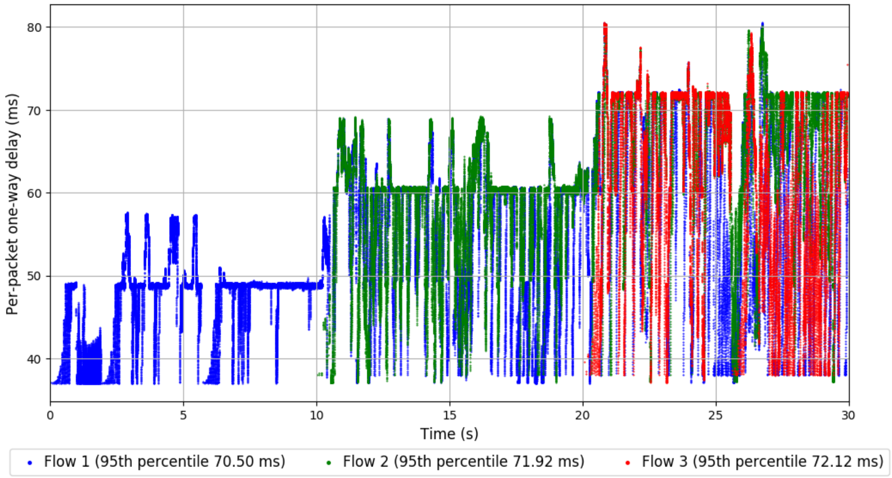




```
Run 5: Statistics of Verus

Start at: 2018-04-03 19:00:59
End at: 2018-04-03 19:01:29
Local clock offset: -0.144 ms
Remote clock offset: -4.274 ms

# Below is generated by plot.py at 2018-04-04 02:38:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.12 Mbit/s
95th percentile per-packet one-way delay: 71.867 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 50.76 Mbit/s
95th percentile per-packet one-way delay: 70.501 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 40.59 Mbit/s
95th percentile per-packet one-way delay: 71.920 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 31.44 Mbit/s
95th percentile per-packet one-way delay: 72.122 ms
Loss rate: 1.26%
```

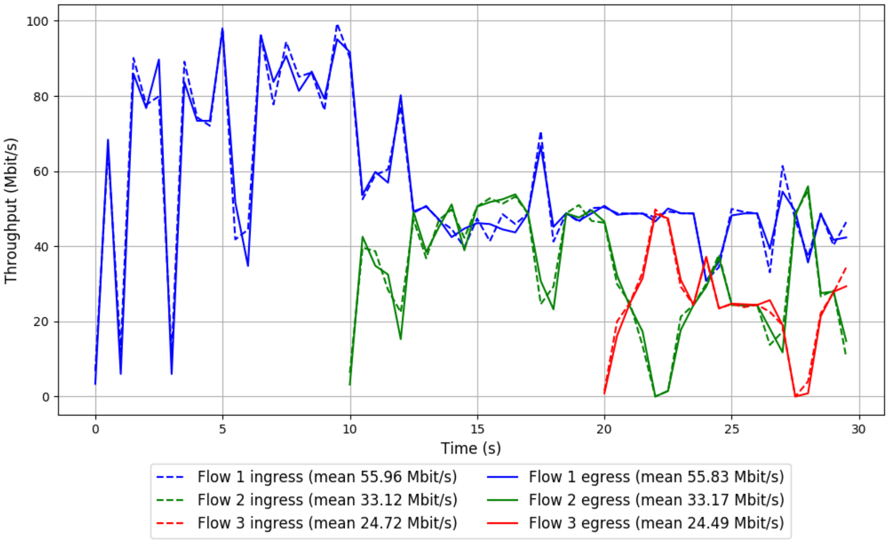
Run 5: Report of Verus — Data Link

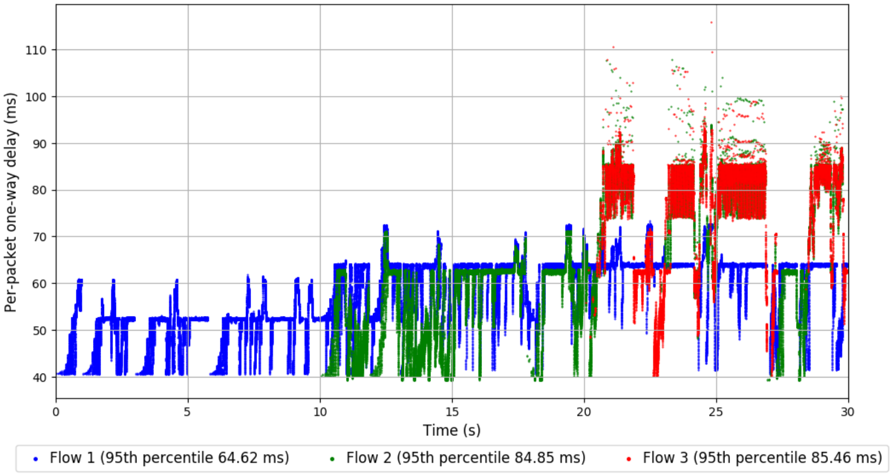




```
Run 6: Statistics of Verus

Start at: 2018-04-03 19:26:13
End at: 2018-04-03 19:26:43
Local clock offset: -0.559 ms
Remote clock offset: -5.146 ms

# Below is generated by plot.py at 2018-04-04 02:38:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.90 Mbit/s
95th percentile per-packet one-way delay: 82.885 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 55.83 Mbit/s
95th percentile per-packet one-way delay: 64.625 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 33.17 Mbit/s
95th percentile per-packet one-way delay: 84.848 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 24.49 Mbit/s
95th percentile per-packet one-way delay: 85.459 ms
Loss rate: 1.89%
```

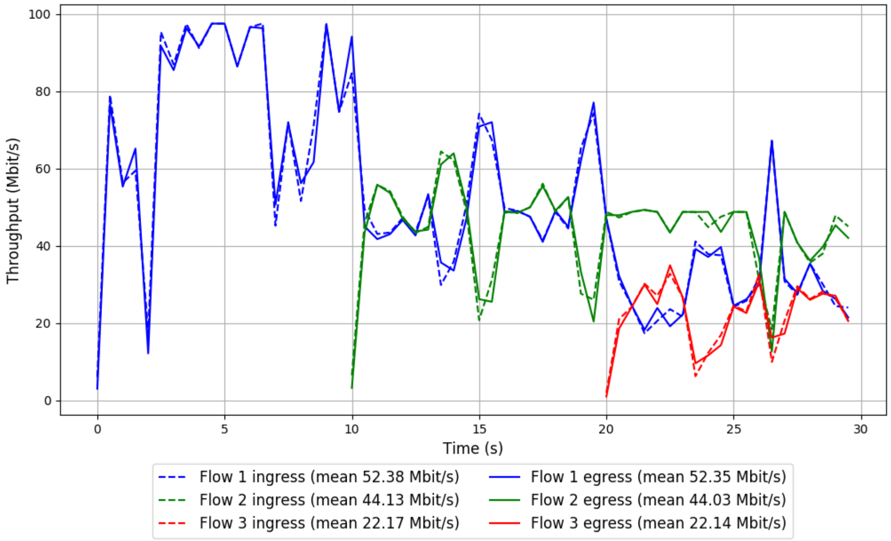
Run 6: Report of Verus — Data Link

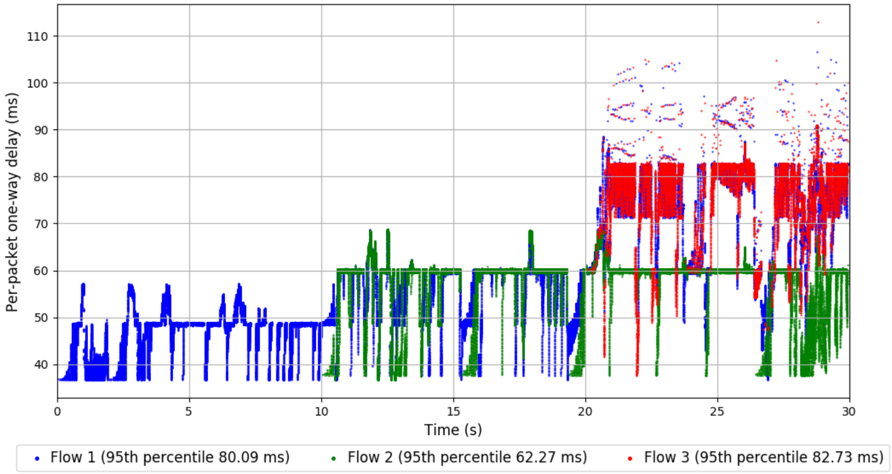




```
Run 7: Statistics of Verus

Start at: 2018-04-03 19:51:12
End at: 2018-04-03 19:51:42
Local clock offset: 0.07 ms
Remote clock offset: -2.825 ms

# Below is generated by plot.py at 2018-04-04 02:39:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.94 Mbit/s
95th percentile per-packet one-way delay: 80.850 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 52.35 Mbit/s
95th percentile per-packet one-way delay: 80.089 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 44.03 Mbit/s
95th percentile per-packet one-way delay: 62.269 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 22.14 Mbit/s
95th percentile per-packet one-way delay: 82.733 ms
Loss rate: 0.94%
```

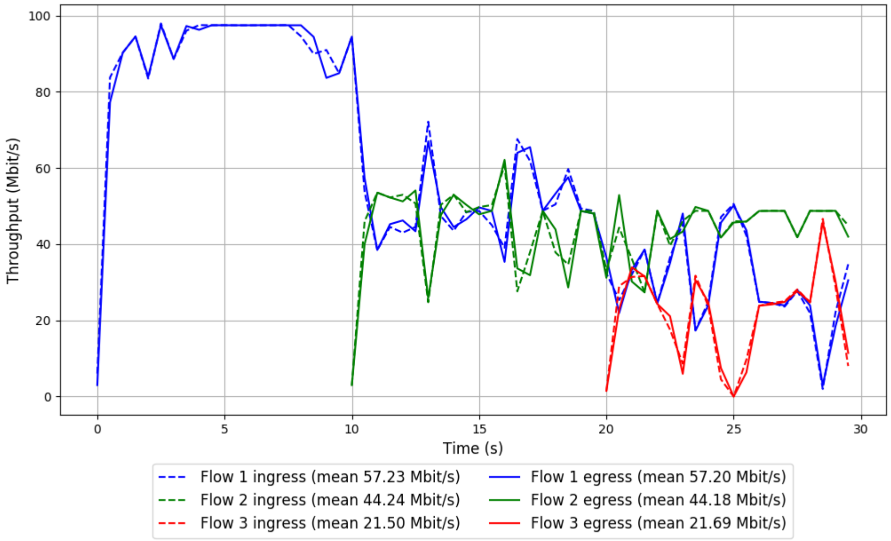
Run 7: Report of Verus — Data Link

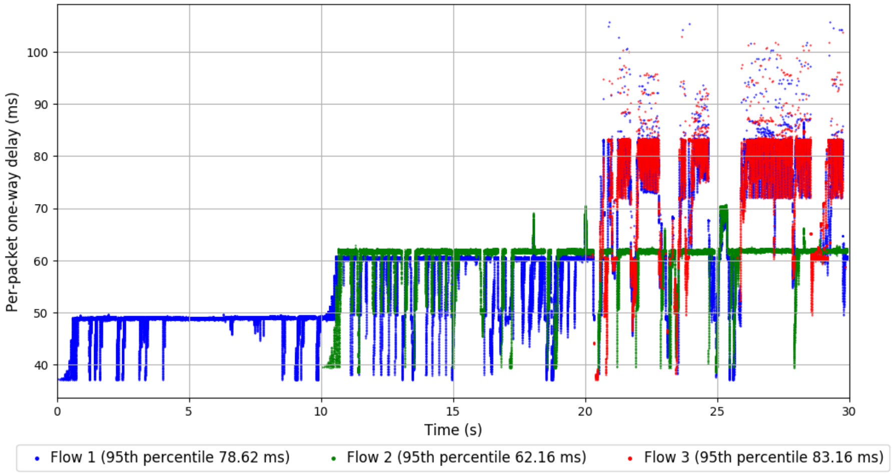




```
Run 8: Statistics of Verus

Start at: 2018-04-03 20:16:18
End at: 2018-04-03 20:16:48
Local clock offset: 0.646 ms
Remote clock offset: -1.989 ms

# Below is generated by plot.py at 2018-04-04 02:39:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.66 Mbit/s
95th percentile per-packet one-way delay: 80.102 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 57.20 Mbit/s
95th percentile per-packet one-way delay: 78.620 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 44.18 Mbit/s
95th percentile per-packet one-way delay: 62.157 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 21.69 Mbit/s
95th percentile per-packet one-way delay: 83.162 ms
Loss rate: 0.02%
```

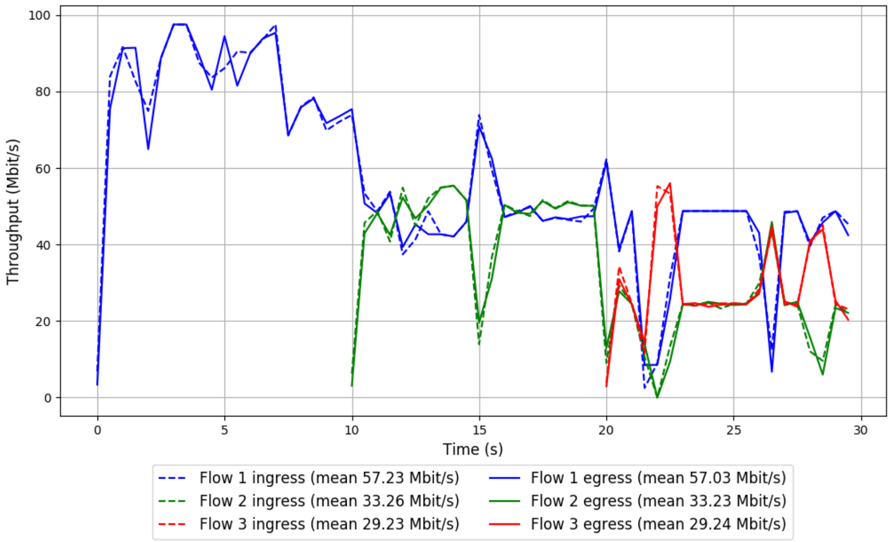
Run 8: Report of Verus — Data Link

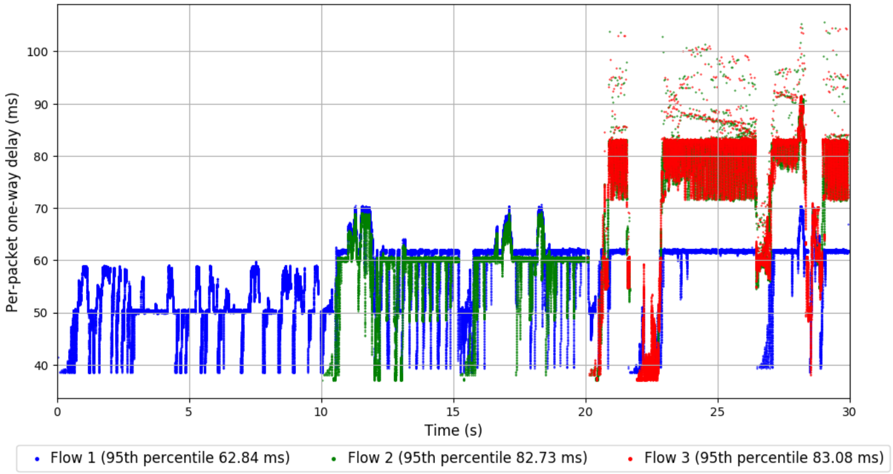




```
Run 9: Statistics of Verus

Start at: 2018-04-03 20:41:21
End at: 2018-04-03 20:41:51
Local clock offset: 0.825 ms
Remote clock offset: -1.615 ms

# Below is generated by plot.py at 2018-04-04 02:39:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.77 Mbit/s
95th percentile per-packet one-way delay: 81.814 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 57.03 Mbit/s
95th percentile per-packet one-way delay: 62.842 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 33.23 Mbit/s
95th percentile per-packet one-way delay: 82.726 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 29.24 Mbit/s
95th percentile per-packet one-way delay: 83.083 ms
Loss rate: 1.14%
```

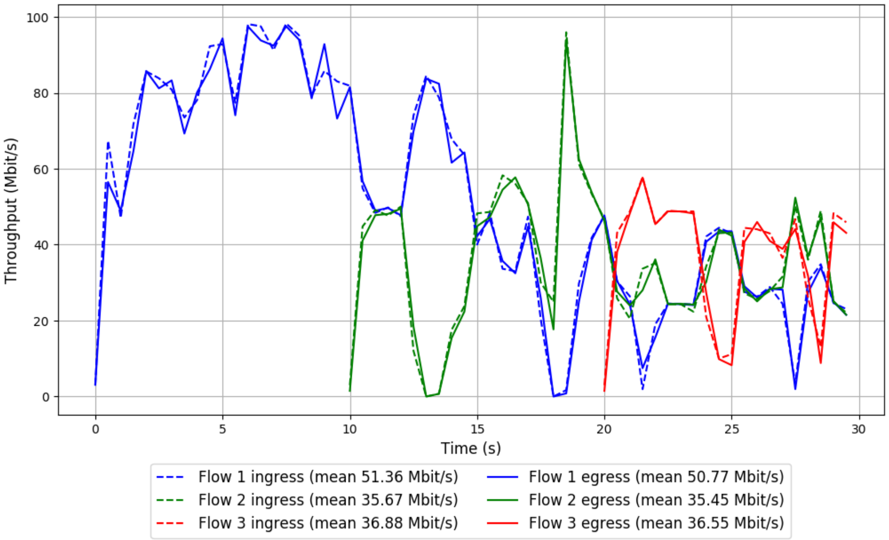
Run 9: Report of Verus — Data Link

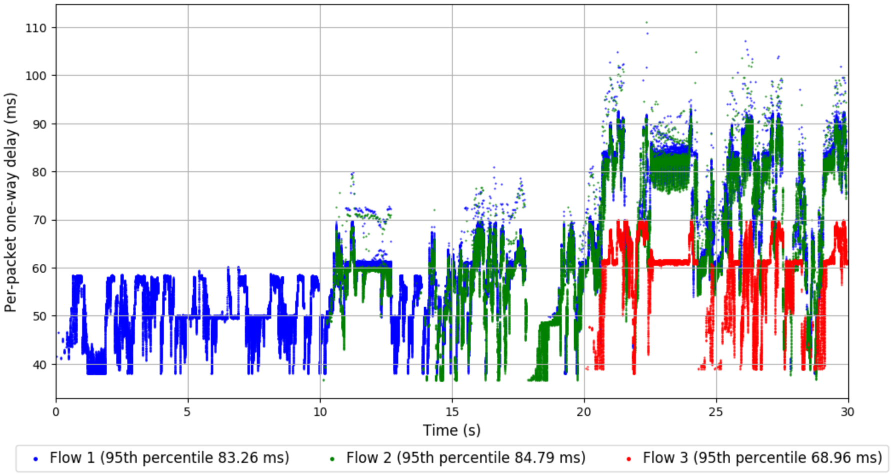




```
Run 10: Statistics of Verus

Start at: 2018-04-03 21:06:47
End at: 2018-04-03 21:07:17
Local clock offset: 0.714 ms
Remote clock offset: -2.12 ms

# Below is generated by plot.py at 2018-04-04 02:39:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.41 Mbit/s
95th percentile per-packet one-way delay: 82.918 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 50.77 Mbit/s
95th percentile per-packet one-way delay: 83.256 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 35.45 Mbit/s
95th percentile per-packet one-way delay: 84.787 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 36.55 Mbit/s
95th percentile per-packet one-way delay: 68.957 ms
Loss rate: 1.65%
```

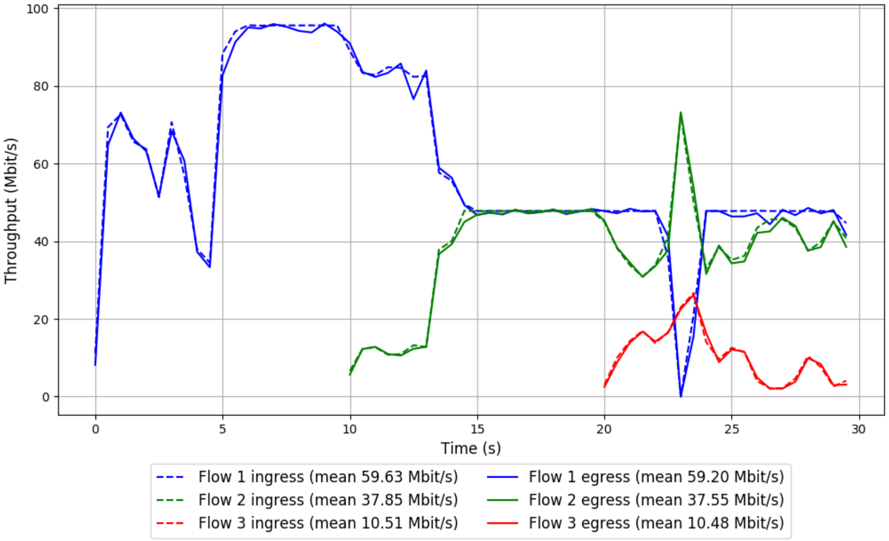
Run 10: Report of Verus — Data Link

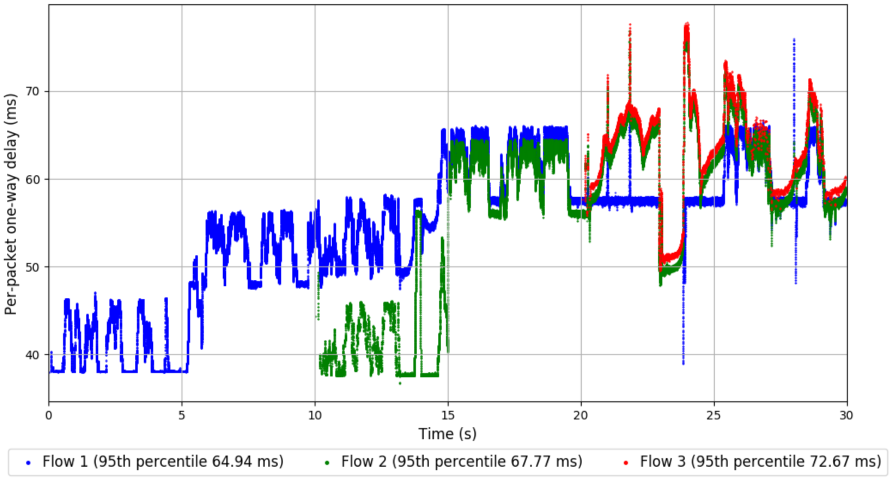




```
Run 1: Statistics of Copa

Start at: 2018-04-03 17:10:18
End at: 2018-04-03 17:10:48
Local clock offset: 0.355 ms
Remote clock offset: -1.619 ms

# Below is generated by plot.py at 2018-04-04 02:40:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.64 Mbit/s
95th percentile per-packet one-way delay: 65.672 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 59.20 Mbit/s
95th percentile per-packet one-way delay: 64.945 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 37.55 Mbit/s
95th percentile per-packet one-way delay: 67.767 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 10.48 Mbit/s
95th percentile per-packet one-way delay: 72.673 ms
Loss rate: 1.11%
```

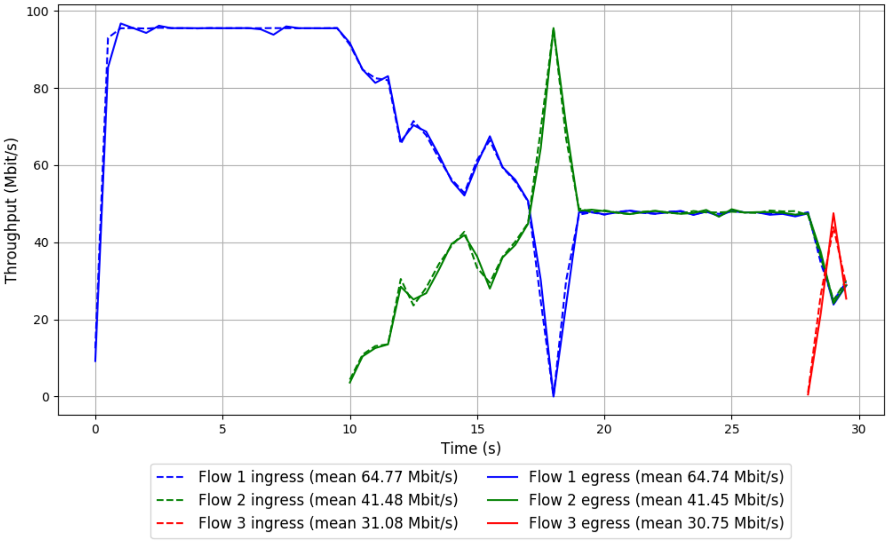
Run 1: Report of Copa — Data Link

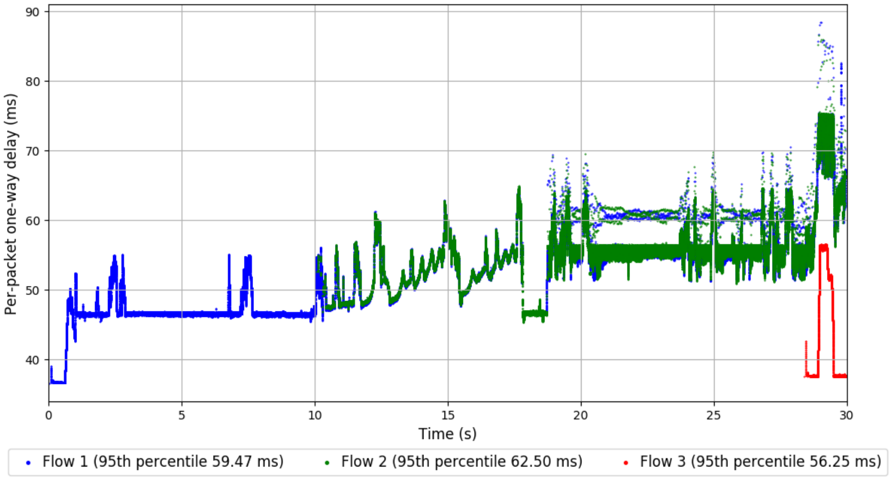




```
Run 2: Statistics of Copa

Start at: 2018-04-03 17:35:49
End at: 2018-04-03 17:36:19
Local clock offset: 0.504 ms
Remote clock offset: -3.817 ms

# Below is generated by plot.py at 2018-04-04 02:41:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.88 Mbit/s
95th percentile per-packet one-way delay: 60.682 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 64.74 Mbit/s
95th percentile per-packet one-way delay: 59.468 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 41.45 Mbit/s
95th percentile per-packet one-way delay: 62.500 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 30.75 Mbit/s
95th percentile per-packet one-way delay: 56.250 ms
Loss rate: 5.22%
```

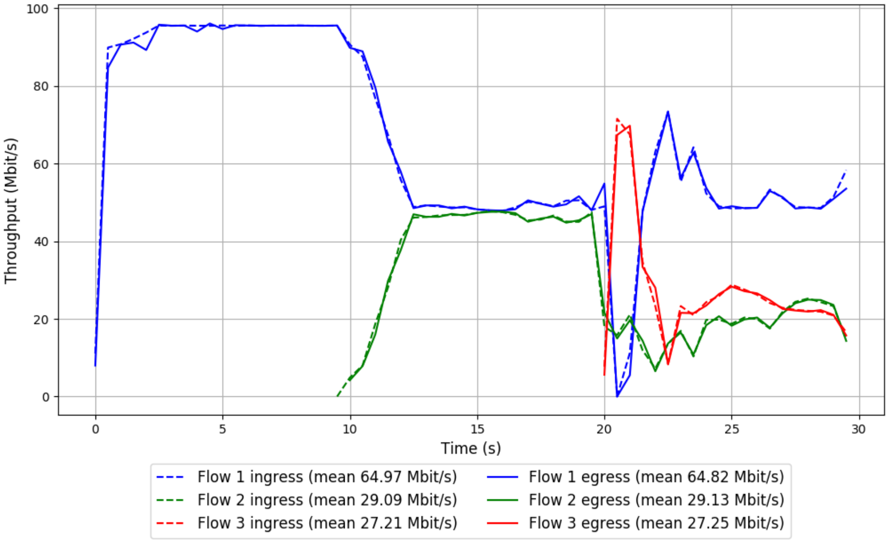
Run 2: Report of Copa — Data Link

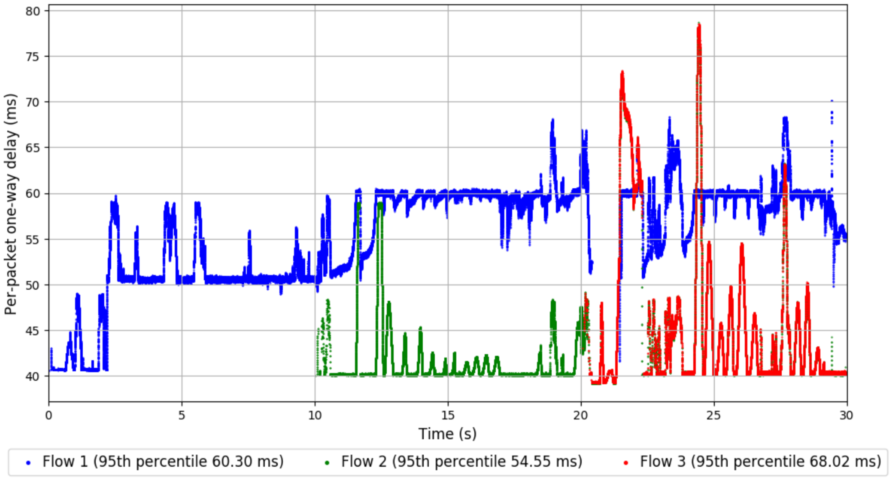




```
Run 3: Statistics of Copa

Start at: 2018-04-03 18:00:38
End at: 2018-04-03 18:01:08
Local clock offset: 0.264 ms
Remote clock offset: -4.675 ms

# Below is generated by plot.py at 2018-04-04 02:41:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 60.366 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 64.82 Mbit/s
95th percentile per-packet one-way delay: 60.304 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 29.13 Mbit/s
95th percentile per-packet one-way delay: 54.550 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 27.25 Mbit/s
95th percentile per-packet one-way delay: 68.015 ms
Loss rate: 0.59%
```

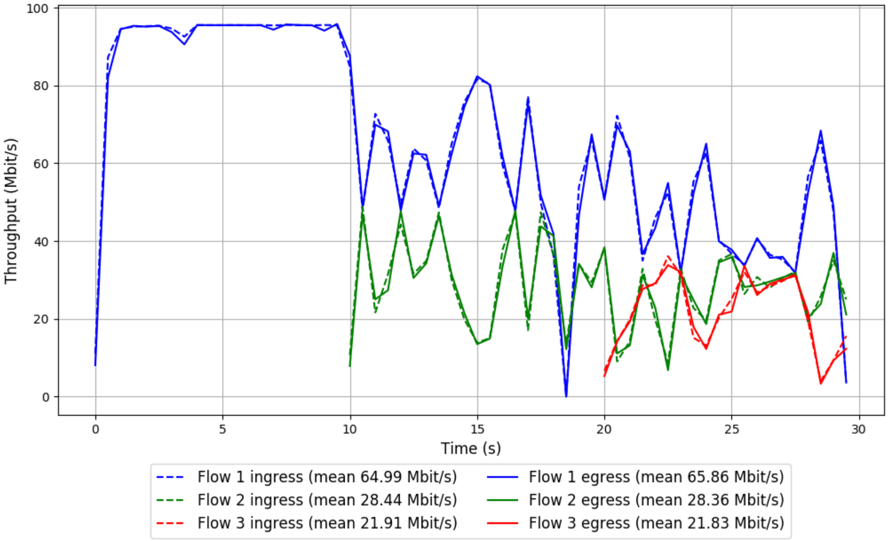
Run 3: Report of Copa — Data Link

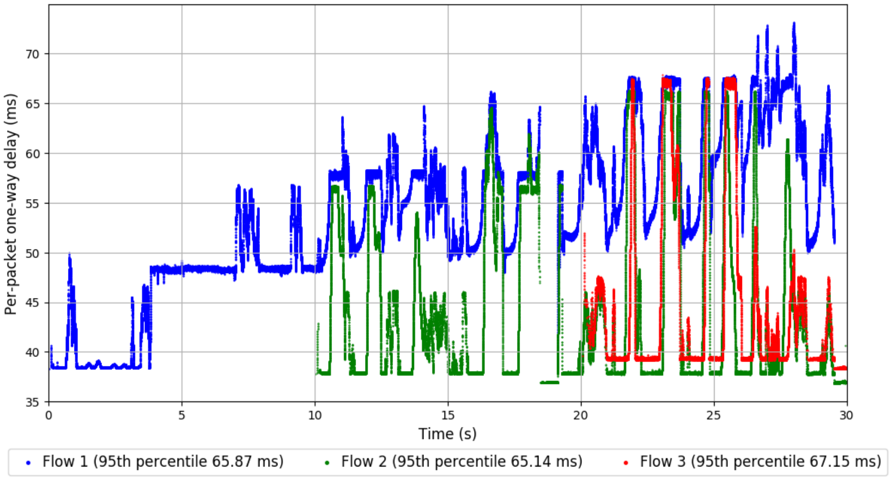




```
Run 4: Statistics of Copa

Start at: 2018-04-03 18:25:46
End at: 2018-04-03 18:26:16
Local clock offset: 0.179 ms
Remote clock offset: -3.924 ms

# Below is generated by plot.py at 2018-04-04 02:41:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.02 Mbit/s
95th percentile per-packet one-way delay: 65.916 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 65.86 Mbit/s
95th percentile per-packet one-way delay: 65.867 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 28.36 Mbit/s
95th percentile per-packet one-way delay: 65.139 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 21.83 Mbit/s
95th percentile per-packet one-way delay: 67.151 ms
Loss rate: 1.09%
```

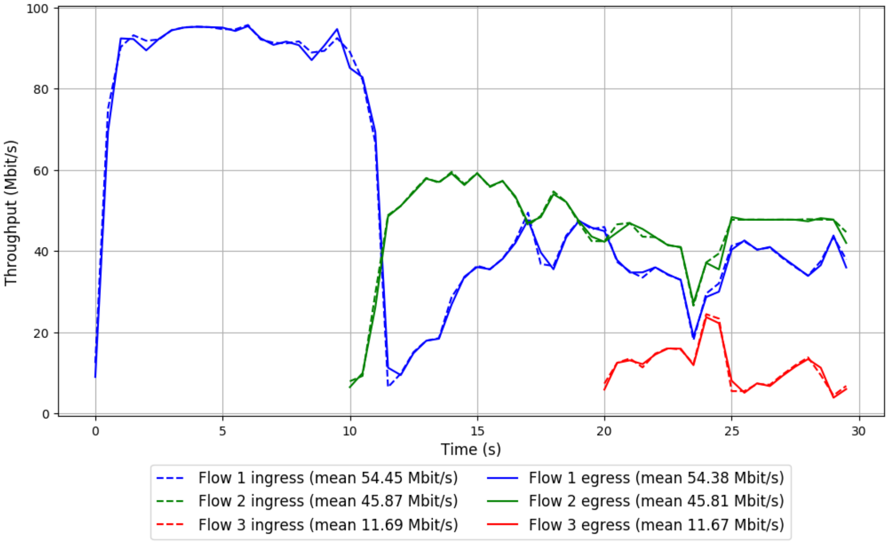
Run 4: Report of Copa — Data Link

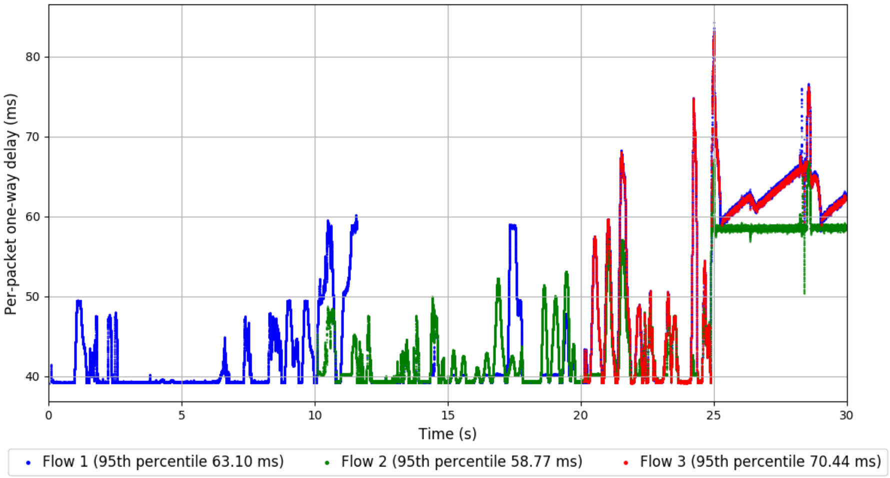




```
Run 5: Statistics of Copa

Start at: 2018-04-03 18:51:00
End at: 2018-04-03 18:51:30
Local clock offset: -0.028 ms
Remote clock offset: -8.234 ms

# Below is generated by plot.py at 2018-04-04 02:41:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.72 Mbit/s
95th percentile per-packet one-way delay: 62.648 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 54.38 Mbit/s
95th percentile per-packet one-way delay: 63.101 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 45.81 Mbit/s
95th percentile per-packet one-way delay: 58.768 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 70.444 ms
Loss rate: 0.86%
```

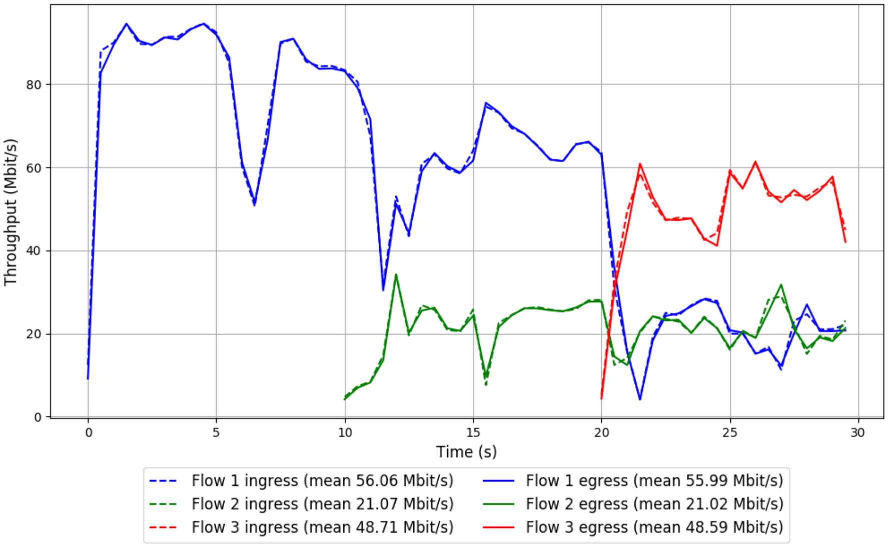
Run 5: Report of Copa — Data Link

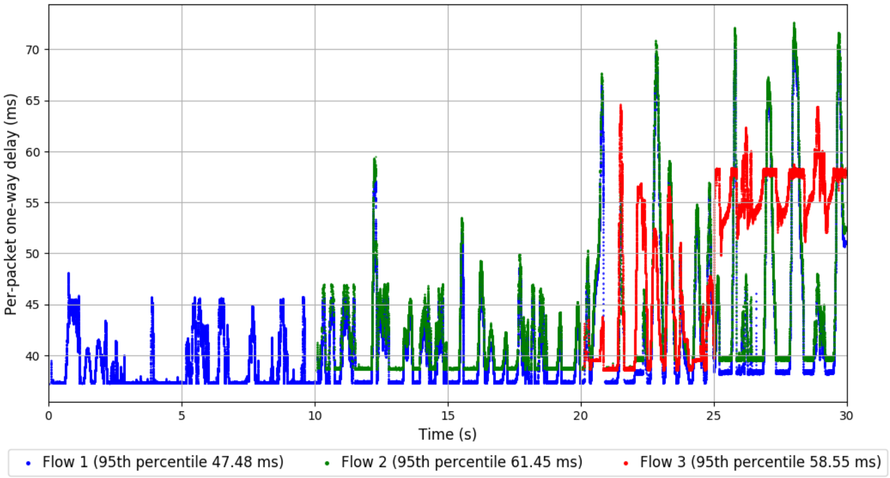




```
Run 6: Statistics of Copa

Start at: 2018-04-03 19:16:23
End at: 2018-04-03 19:16:53
Local clock offset: -0.319 ms
Remote clock offset: -3.101 ms

# Below is generated by plot.py at 2018-04-04 02:41:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.04 Mbit/s
95th percentile per-packet one-way delay: 58.047 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 55.99 Mbit/s
95th percentile per-packet one-way delay: 47.477 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 21.02 Mbit/s
95th percentile per-packet one-way delay: 61.453 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 48.59 Mbit/s
95th percentile per-packet one-way delay: 58.547 ms
Loss rate: 1.01%
```

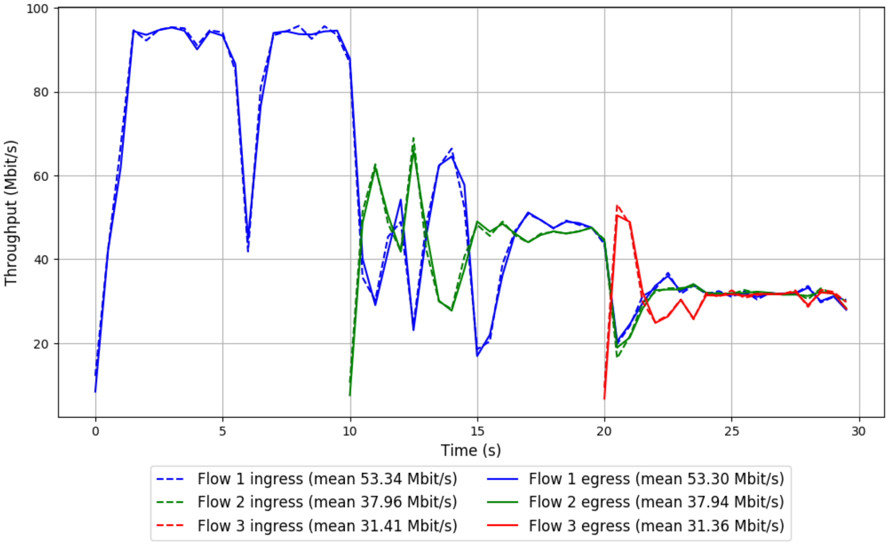
Run 6: Report of Copa — Data Link

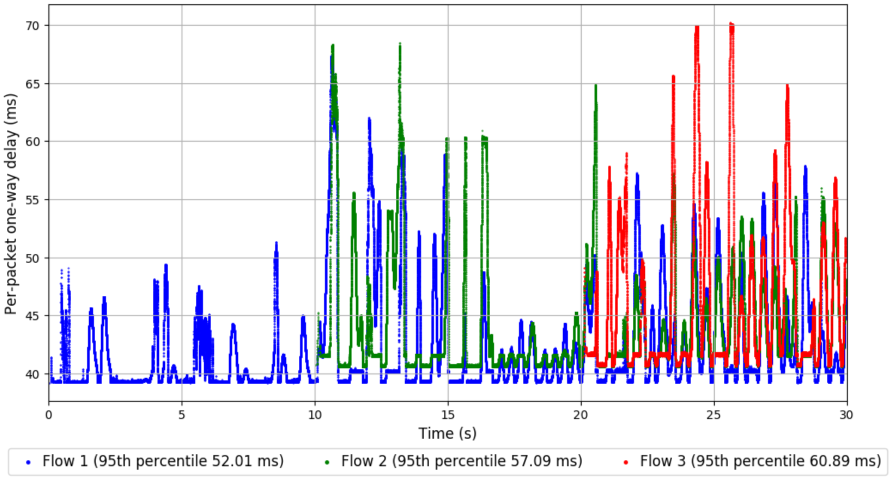




```
Run 7: Statistics of Copa

Start at: 2018-04-03 19:41:29
End at: 2018-04-03 19:41:59
Local clock offset: -0.048 ms
Remote clock offset: -5.251 ms

# Below is generated by plot.py at 2018-04-04 02:41:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.91 Mbit/s
95th percentile per-packet one-way delay: 55.088 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 53.30 Mbit/s
95th percentile per-packet one-way delay: 52.013 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 37.94 Mbit/s
95th percentile per-packet one-way delay: 57.085 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 31.36 Mbit/s
95th percentile per-packet one-way delay: 60.894 ms
Loss rate: 0.87%
```

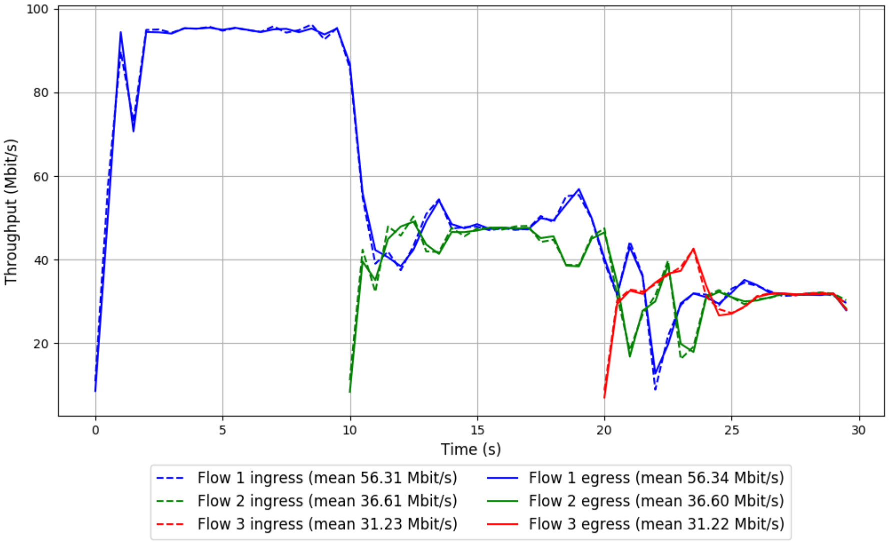
Run 7: Report of Copa — Data Link

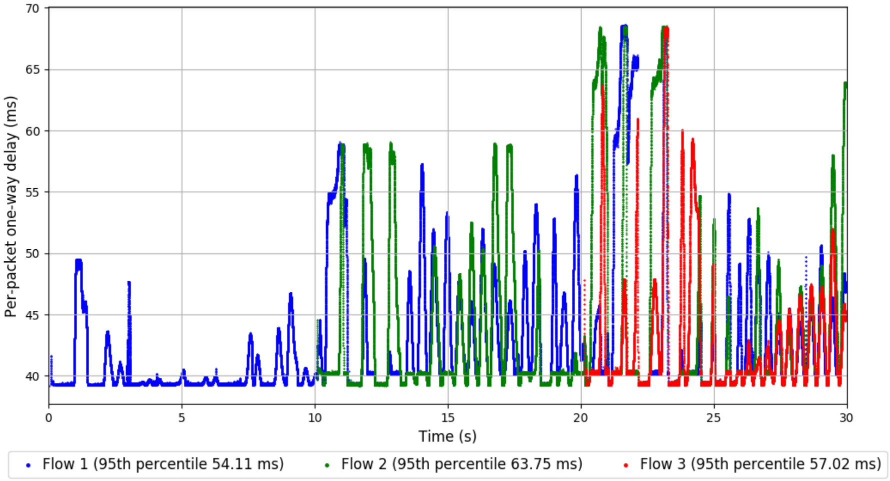




```
Run 8: Statistics of Copa

Start at: 2018-04-03 20:06:30
End at: 2018-04-03 20:07:00
Local clock offset: 0.381 ms
Remote clock offset: -4.757 ms

# Below is generated by plot.py at 2018-04-04 02:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.02 Mbit/s
95th percentile per-packet one-way delay: 57.932 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 56.34 Mbit/s
95th percentile per-packet one-way delay: 54.109 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 36.60 Mbit/s
95th percentile per-packet one-way delay: 63.751 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 31.22 Mbit/s
95th percentile per-packet one-way delay: 57.019 ms
Loss rate: 0.70%
```

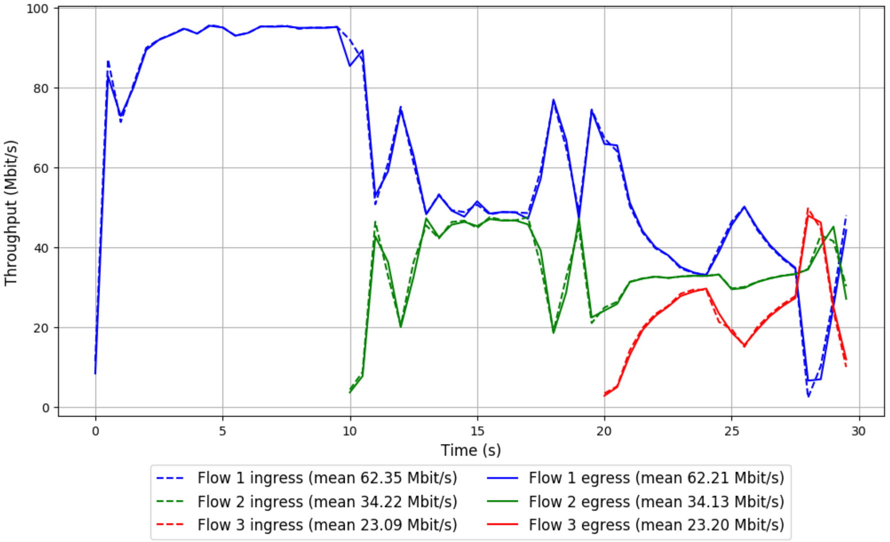
Run 8: Report of Copa — Data Link

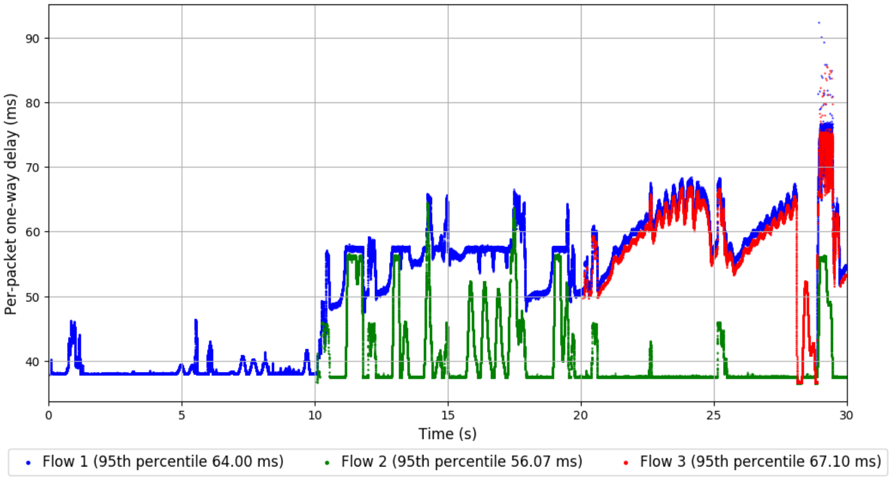




```
Run 9: Statistics of Copa

Start at: 2018-04-03 20:31:24
End at: 2018-04-03 20:31:54
Local clock offset: 0.81 ms
Remote clock offset: -0.872 ms

# Below is generated by plot.py at 2018-04-04 02:43:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.60 Mbit/s
95th percentile per-packet one-way delay: 64.044 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 62.21 Mbit/s
95th percentile per-packet one-way delay: 64.005 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 34.13 Mbit/s
95th percentile per-packet one-way delay: 56.073 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 23.20 Mbit/s
95th percentile per-packet one-way delay: 67.103 ms
Loss rate: 0.34%
```

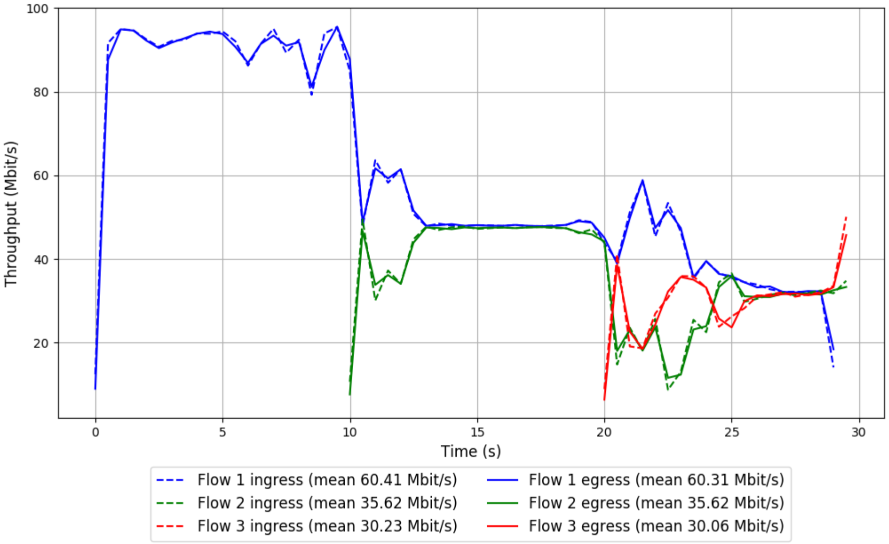
Run 9: Report of Copa — Data Link

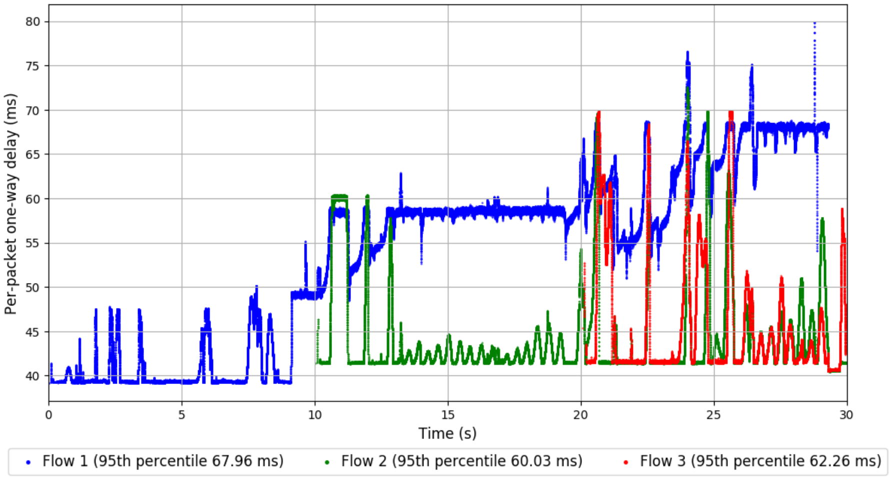




```
Run 10: Statistics of Copa

Start at: 2018-04-03 20:56:41
End at: 2018-04-03 20:57:11
Local clock offset: 0.655 ms
Remote clock offset: -4.252 ms

# Below is generated by plot.py at 2018-04-04 02:43:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.62 Mbit/s
95th percentile per-packet one-way delay: 67.013 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 60.31 Mbit/s
95th percentile per-packet one-way delay: 67.960 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 35.62 Mbit/s
95th percentile per-packet one-way delay: 60.031 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 30.06 Mbit/s
95th percentile per-packet one-way delay: 62.260 ms
Loss rate: 1.29%
```

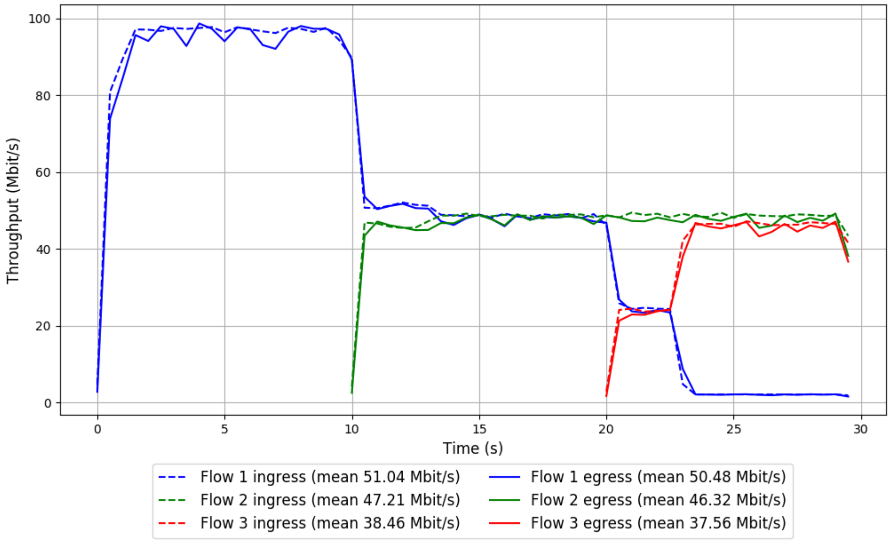
Run 10: Report of Copa — Data Link

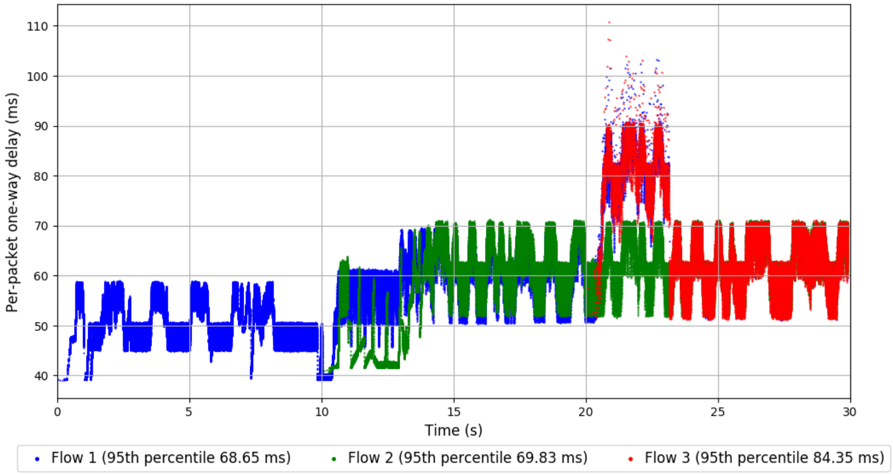




```
Run 1: Statistics of FillP

Start at: 2018-04-03 17:04:38
End at: 2018-04-03 17:05:08
Local clock offset: 0.369 ms
Remote clock offset: -4.163 ms

# Below is generated by plot.py at 2018-04-04 02:43:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.67 Mbit/s
95th percentile per-packet one-way delay: 70.366 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 50.48 Mbit/s
95th percentile per-packet one-way delay: 68.648 ms
Loss rate: 1.30%
-- Flow 2:
Average throughput: 46.32 Mbit/s
95th percentile per-packet one-way delay: 69.830 ms
Loss rate: 2.28%
-- Flow 3:
Average throughput: 37.56 Mbit/s
95th percentile per-packet one-way delay: 84.353 ms
Loss rate: 3.27%
```

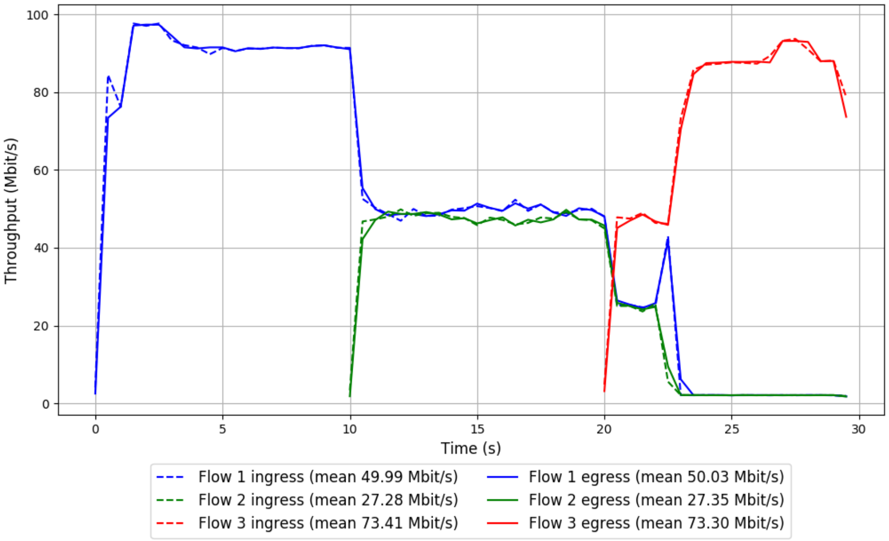
Run 1: Report of FillP — Data Link

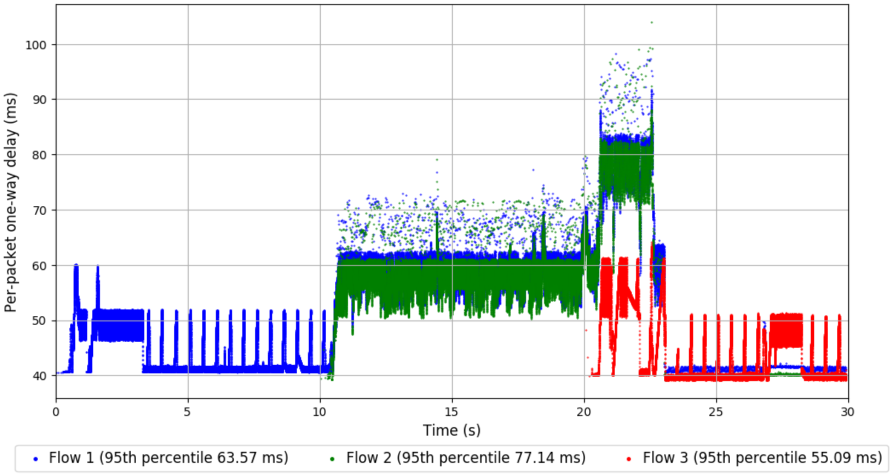




```
Run 2: Statistics of FillP

Start at: 2018-04-03 17:30:20
End at: 2018-04-03 17:30:50
Local clock offset: 0.483 ms
Remote clock offset: -6.078 ms

# Below is generated by plot.py at 2018-04-04 02:43:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.40 Mbit/s
95th percentile per-packet one-way delay: 63.997 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 50.03 Mbit/s
95th percentile per-packet one-way delay: 63.573 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 27.35 Mbit/s
95th percentile per-packet one-way delay: 77.139 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 73.30 Mbit/s
95th percentile per-packet one-way delay: 55.093 ms
Loss rate: 0.90%
```

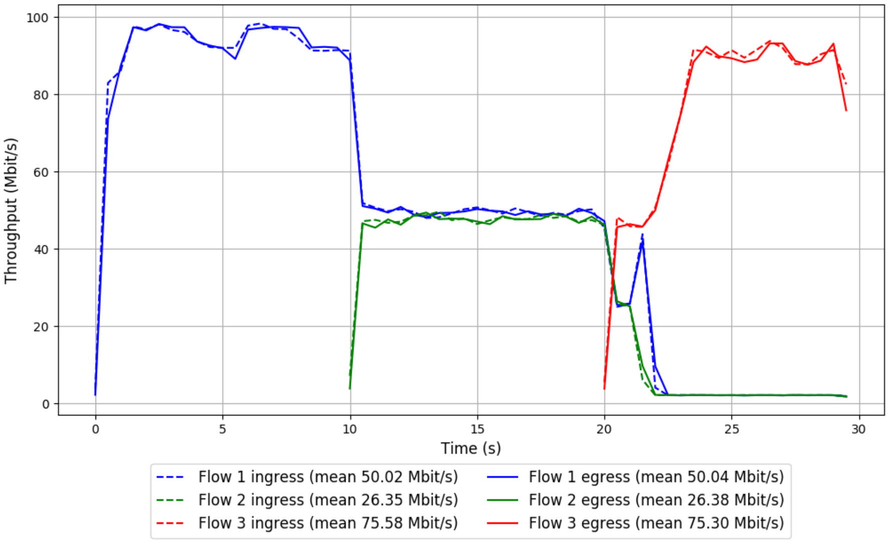
Run 2: Report of FillP — Data Link

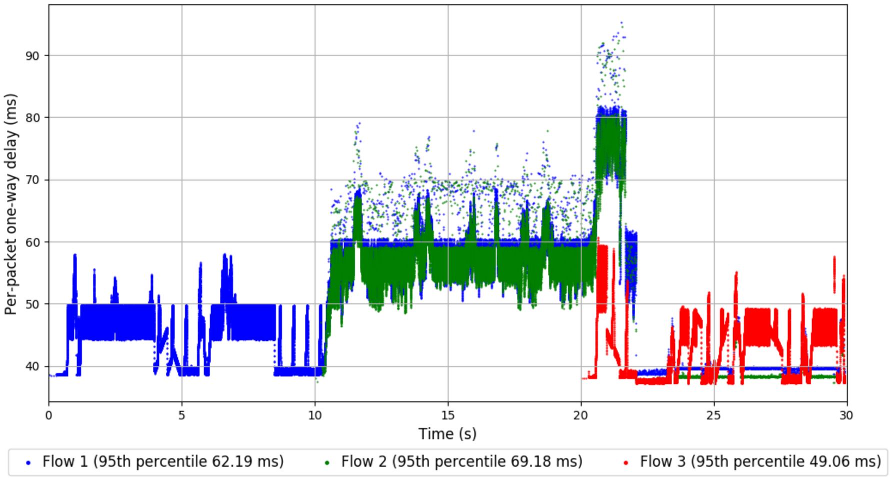




```
Run 3: Statistics of FillP

Start at: 2018-04-03 17:55:15
End at: 2018-04-03 17:55:45
Local clock offset: 0.353 ms
Remote clock offset: -2.995 ms

# Below is generated by plot.py at 2018-04-04 02:43:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.44 Mbit/s
95th percentile per-packet one-way delay: 62.064 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 50.04 Mbit/s
95th percentile per-packet one-way delay: 62.189 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 26.38 Mbit/s
95th percentile per-packet one-way delay: 69.178 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 75.30 Mbit/s
95th percentile per-packet one-way delay: 49.064 ms
Loss rate: 1.06%
```

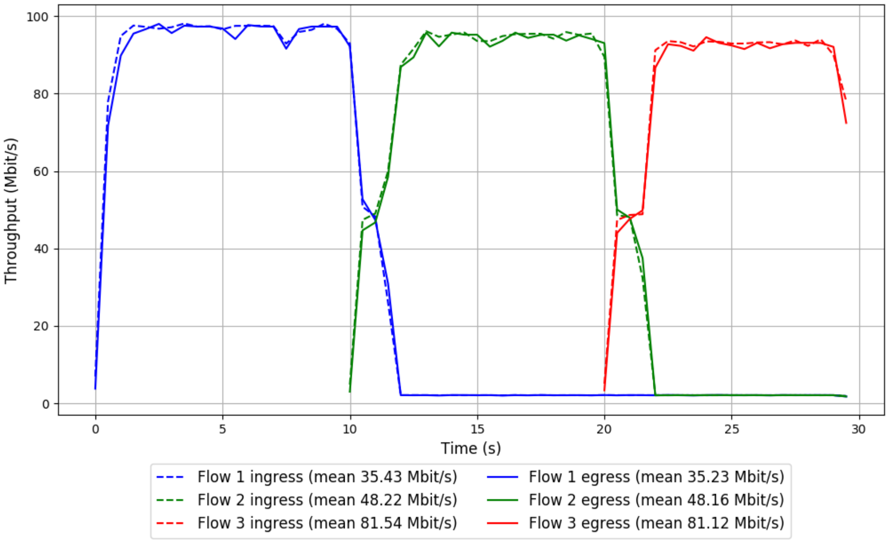
Run 3: Report of FillP — Data Link

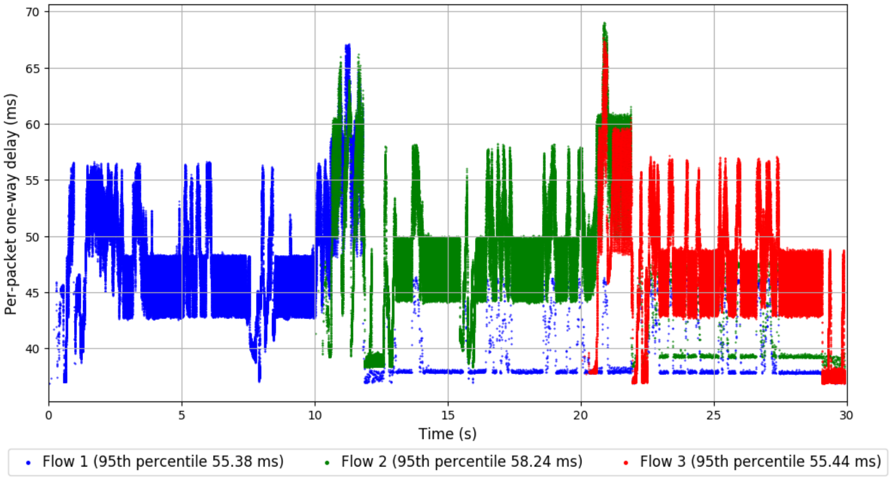




```
Run 4: Statistics of FillP

Start at: 2018-04-03 18:19:59
End at: 2018-04-03 18:20:29
Local clock offset: 0.281 ms
Remote clock offset: -2.494 ms

# Below is generated by plot.py at 2018-04-04 02:43:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.05 Mbit/s
95th percentile per-packet one-way delay: 56.418 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 35.23 Mbit/s
95th percentile per-packet one-way delay: 55.382 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 48.16 Mbit/s
95th percentile per-packet one-way delay: 58.243 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 81.12 Mbit/s
95th percentile per-packet one-way delay: 55.438 ms
Loss rate: 1.20%
```

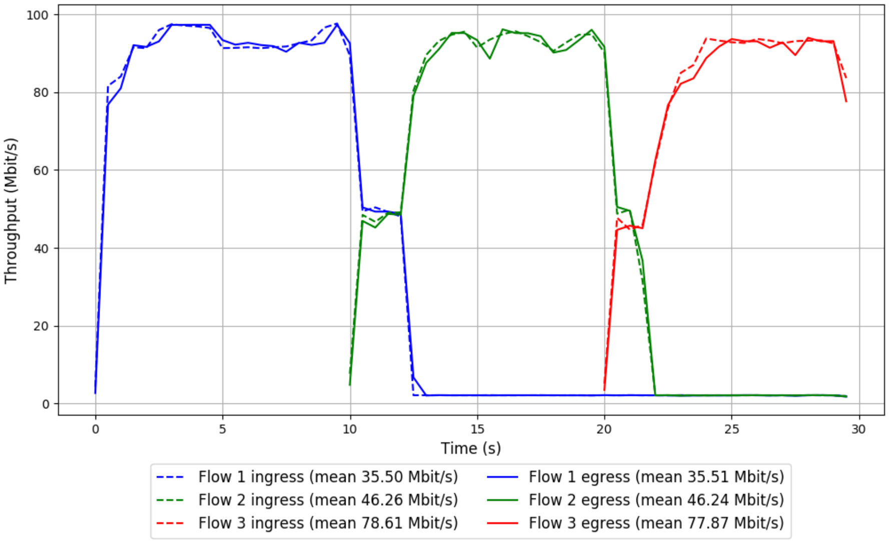
Run 4: Report of FillP — Data Link

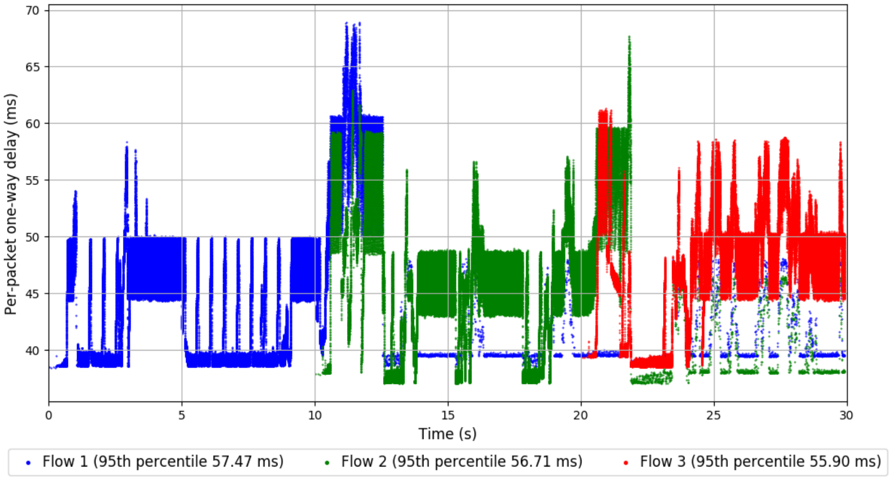




```
Run 5: Statistics of FillP

Start at: 2018-04-03 18:45:31
End at: 2018-04-03 18:46:01
Local clock offset: -0.03 ms
Remote clock offset: -5.903 ms

# Below is generated by plot.py at 2018-04-04 02:43:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.95 Mbit/s
95th percentile per-packet one-way delay: 56.580 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 35.51 Mbit/s
95th percentile per-packet one-way delay: 57.472 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 46.24 Mbit/s
95th percentile per-packet one-way delay: 56.711 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 77.87 Mbit/s
95th percentile per-packet one-way delay: 55.896 ms
Loss rate: 1.64%
```

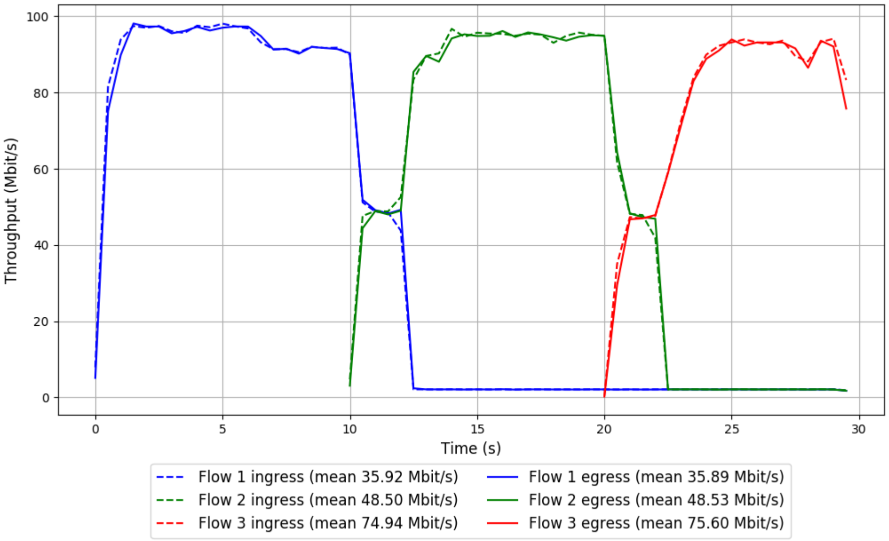
Run 5: Report of FillP — Data Link

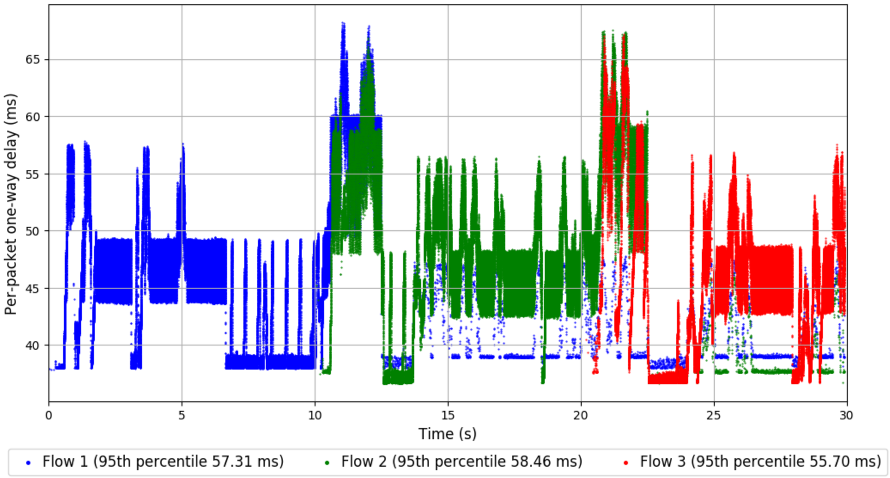




```
Run 6: Statistics of FillP

Start at: 2018-04-03 19:10:46
End at: 2018-04-03 19:11:16
Local clock offset: -0.293 ms
Remote clock offset: -2.819 ms

# Below is generated by plot.py at 2018-04-04 02:43:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.72 Mbit/s
95th percentile per-packet one-way delay: 57.680 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 35.89 Mbit/s
95th percentile per-packet one-way delay: 57.309 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 48.53 Mbit/s
95th percentile per-packet one-way delay: 58.464 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 75.60 Mbit/s
95th percentile per-packet one-way delay: 55.695 ms
Loss rate: 1.37%
```

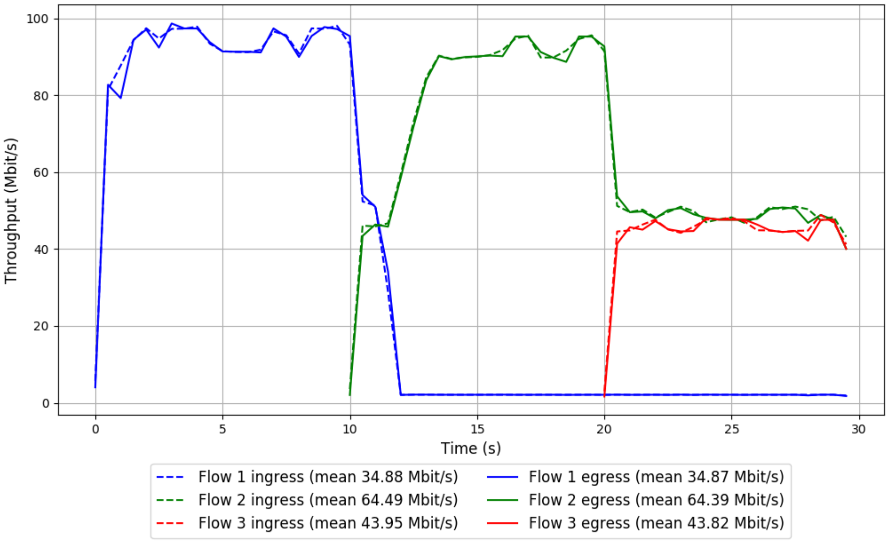
Run 6: Report of FillP — Data Link

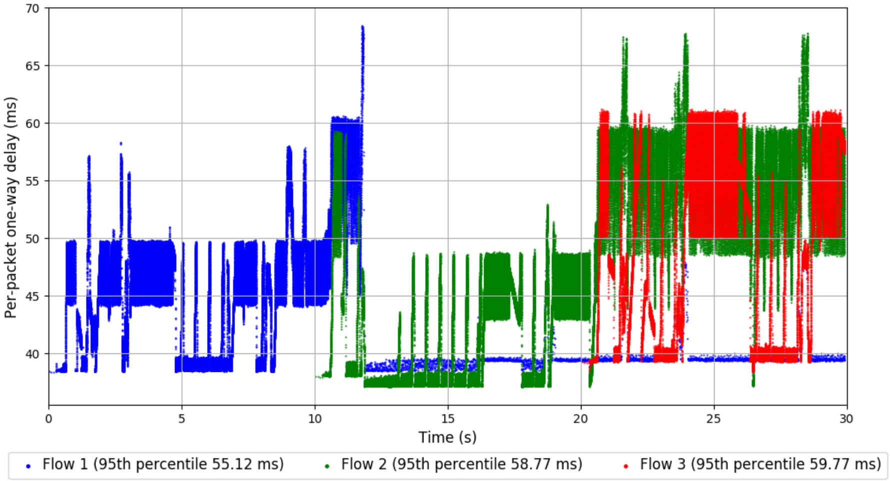




```
Run 7: Statistics of FillP

Start at: 2018-04-03 19:36:03
End at: 2018-04-03 19:36:33
Local clock offset: -0.217 ms
Remote clock offset: -3.036 ms

# Below is generated by plot.py at 2018-04-04 02:44:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.14 Mbit/s
95th percentile per-packet one-way delay: 58.591 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 34.87 Mbit/s
95th percentile per-packet one-way delay: 55.121 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 64.39 Mbit/s
95th percentile per-packet one-way delay: 58.775 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 43.82 Mbit/s
95th percentile per-packet one-way delay: 59.768 ms
Loss rate: 0.99%
```

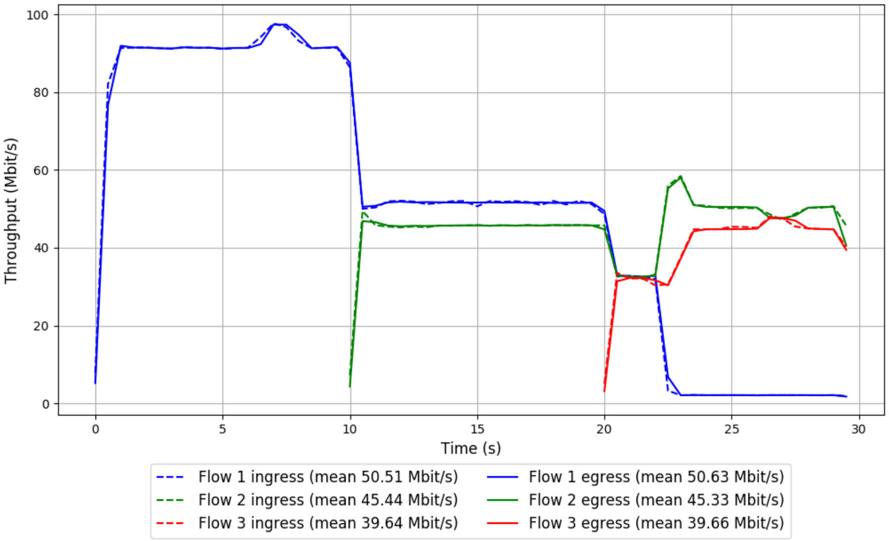
Run 7: Report of FillP — Data Link

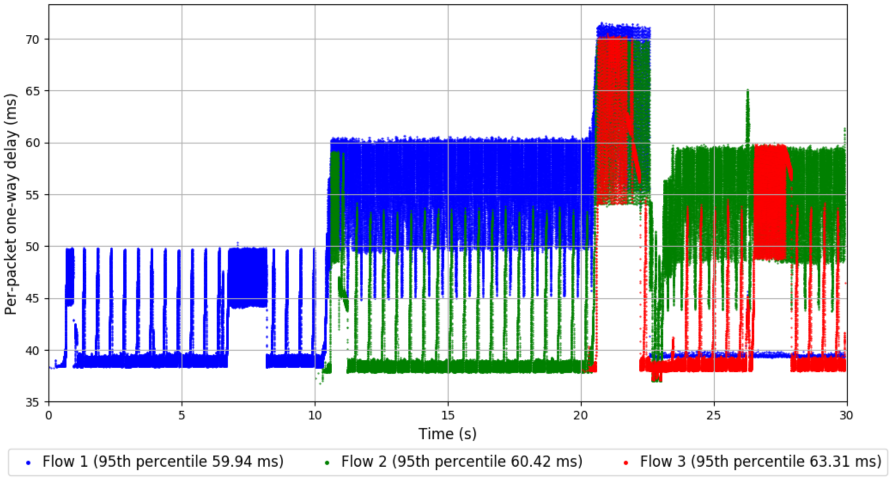




```
Run 8: Statistics of FillP

Start at: 2018-04-03 20:01:01
End at: 2018-04-03 20:01:31
Local clock offset: 0.085 ms
Remote clock offset: -3.119 ms

# Below is generated by plot.py at 2018-04-04 02:44:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.84 Mbit/s
95th percentile per-packet one-way delay: 60.183 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 50.63 Mbit/s
95th percentile per-packet one-way delay: 59.937 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 45.33 Mbit/s
95th percentile per-packet one-way delay: 60.422 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 39.66 Mbit/s
95th percentile per-packet one-way delay: 63.309 ms
Loss rate: 0.57%
```

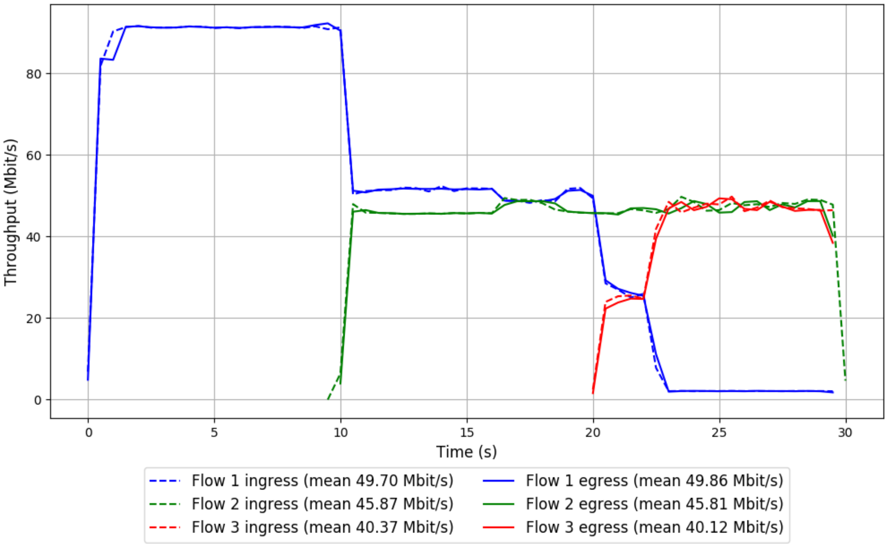
Run 8: Report of FillP — Data Link

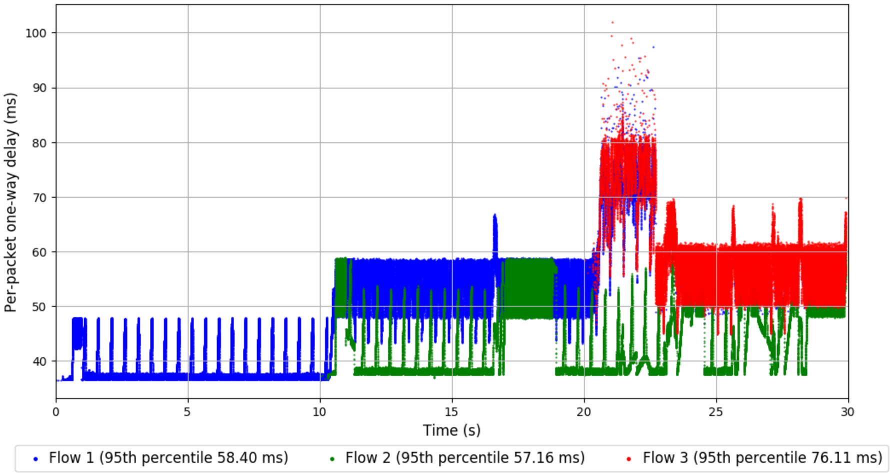




```
Run 9: Statistics of FillP

Start at: 2018-04-03 20:25:58
End at: 2018-04-03 20:26:28
Local clock offset: 0.79 ms
Remote clock offset: -1.003 ms

# Below is generated by plot.py at 2018-04-04 02:44:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.57 Mbit/s
95th percentile per-packet one-way delay: 60.978 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 49.86 Mbit/s
95th percentile per-packet one-way delay: 58.397 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 45.81 Mbit/s
95th percentile per-packet one-way delay: 57.162 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 40.12 Mbit/s
95th percentile per-packet one-way delay: 76.109 ms
Loss rate: 1.96%
```

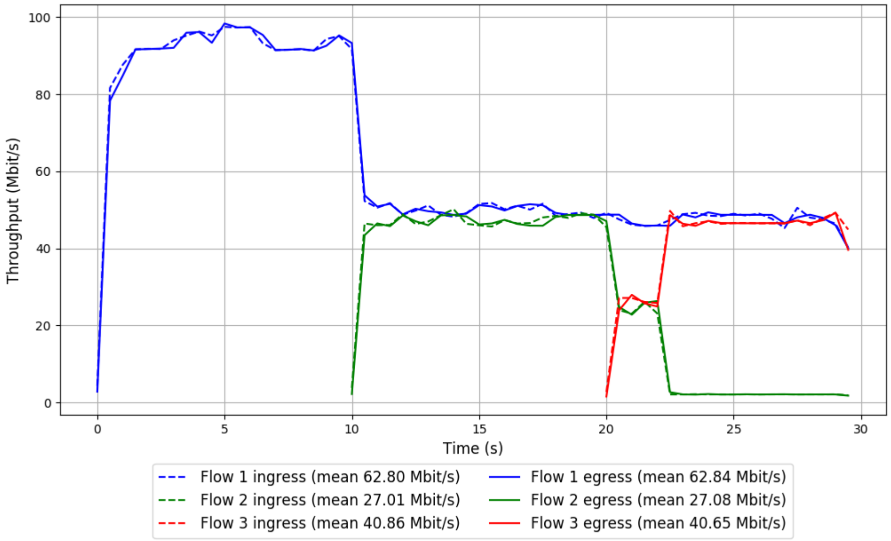
Run 9: Report of FillP — Data Link

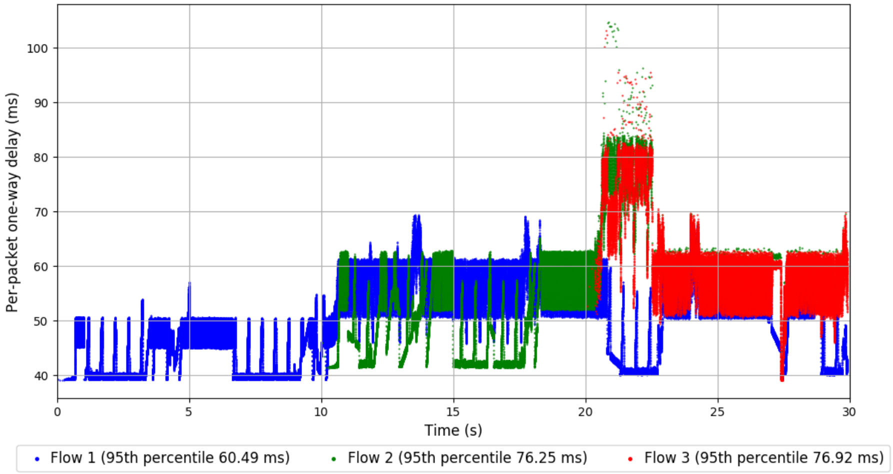




```
Run 10: Statistics of FillP

Start at: 2018-04-03 20:51:01
End at: 2018-04-03 20:51:31
Local clock offset: 0.701 ms
Remote clock offset: -4.01 ms

# Below is generated by plot.py at 2018-04-04 02:44:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.23 Mbit/s
95th percentile per-packet one-way delay: 62.576 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 62.84 Mbit/s
95th percentile per-packet one-way delay: 60.489 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 27.08 Mbit/s
95th percentile per-packet one-way delay: 76.254 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 40.65 Mbit/s
95th percentile per-packet one-way delay: 76.923 ms
Loss rate: 1.34%
```

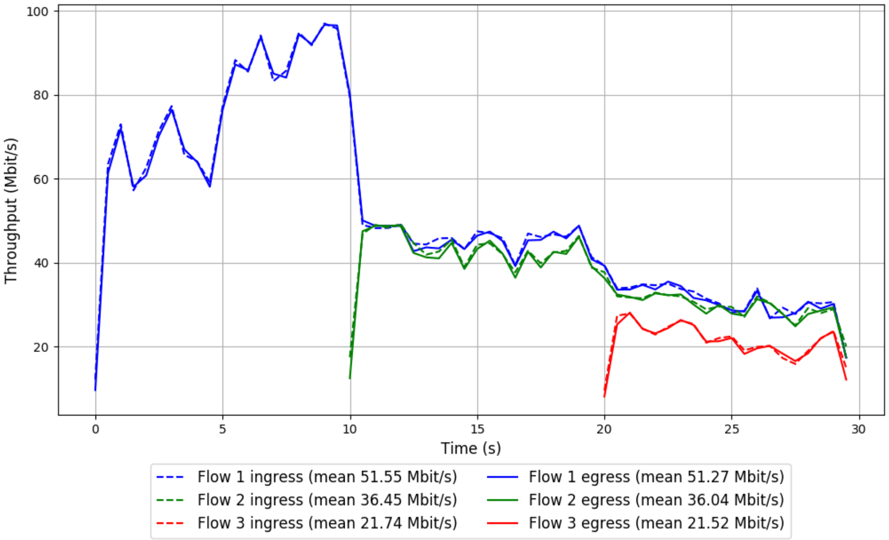
Run 10: Report of FillP — Data Link

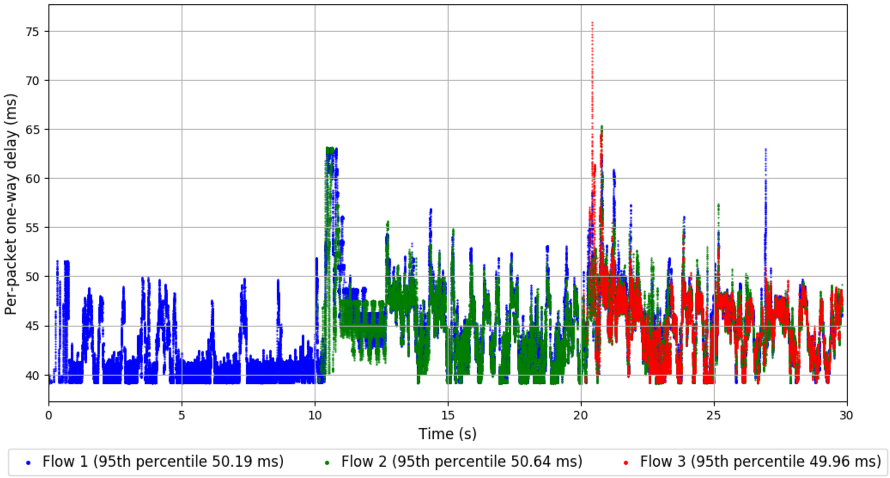




```
Run 1: Statistics of Indigo-1-32

Start at: 2018-04-03 17:00:32
End at: 2018-04-03 17:01:02
Local clock offset: 0.397 ms
Remote clock offset: -4.112 ms

# Below is generated by plot.py at 2018-04-04 02:44:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.16 Mbit/s
95th percentile per-packet one-way delay: 50.301 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 51.27 Mbit/s
95th percentile per-packet one-way delay: 50.194 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 36.04 Mbit/s
95th percentile per-packet one-way delay: 50.637 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 21.52 Mbit/s
95th percentile per-packet one-way delay: 49.964 ms
Loss rate: 1.72%
```

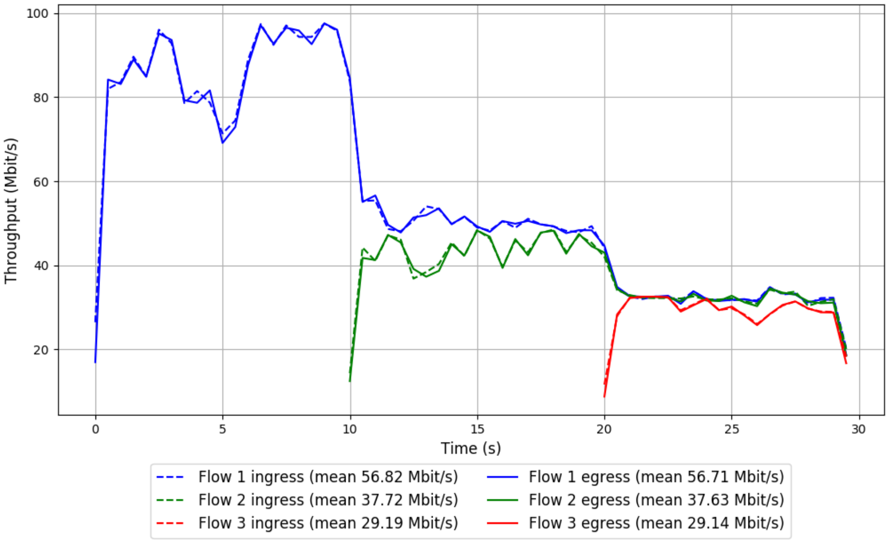
Run 1: Report of Indigo-1-32 — Data Link

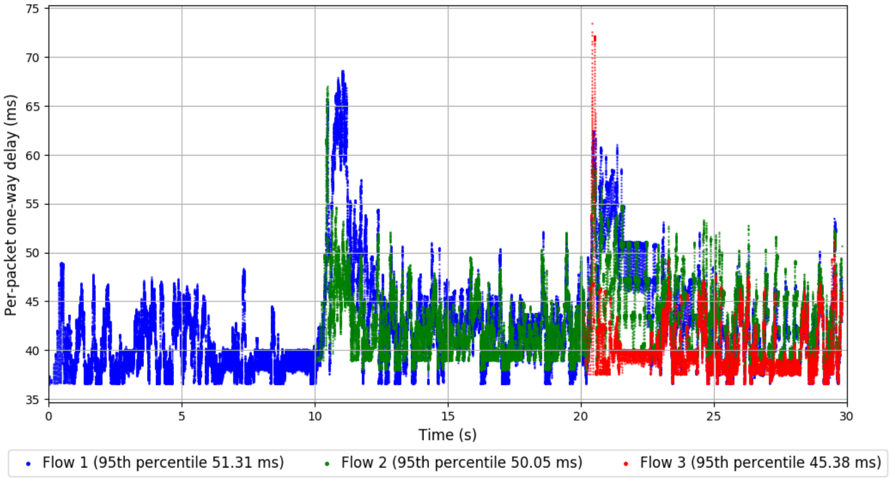




```
Run 2: Statistics of Indigo-1-32

Start at: 2018-04-03 17:26:11
End at: 2018-04-03 17:26:41
Local clock offset: 0.458 ms
Remote clock offset: -3.272 ms

# Below is generated by plot.py at 2018-04-04 02:44:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.18 Mbit/s
95th percentile per-packet one-way delay: 50.714 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 56.71 Mbit/s
95th percentile per-packet one-way delay: 51.311 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 37.63 Mbit/s
95th percentile per-packet one-way delay: 50.053 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 29.14 Mbit/s
95th percentile per-packet one-way delay: 45.384 ms
Loss rate: 0.88%
```

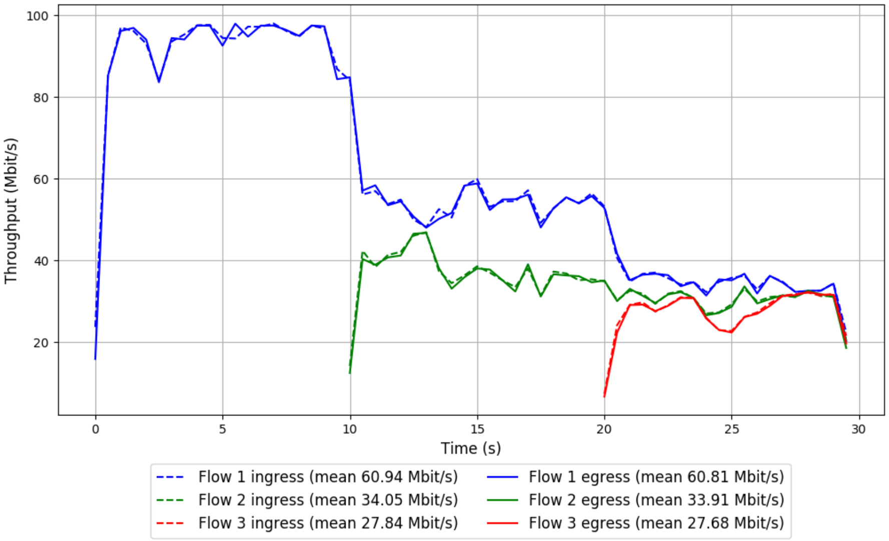
Run 2: Report of Indigo-1-32 — Data Link

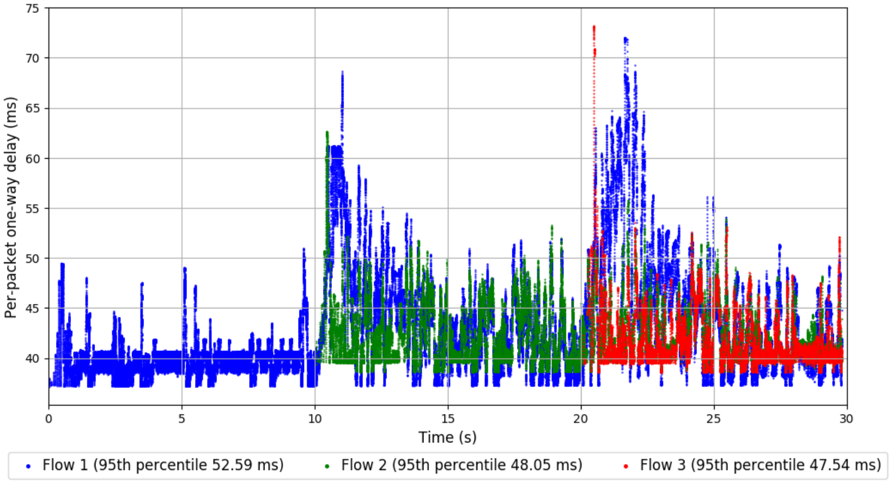




```
Run 3: Statistics of Indigo-1-32

Start at: 2018-04-03 17:51:07
End at: 2018-04-03 17:51:37
Local clock offset: 0.457 ms
Remote clock offset: -3.422 ms

# Below is generated by plot.py at 2018-04-04 02:45:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.35 Mbit/s
95th percentile per-packet one-way delay: 50.499 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 60.81 Mbit/s
95th percentile per-packet one-way delay: 52.595 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 33.91 Mbit/s
95th percentile per-packet one-way delay: 48.047 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 27.68 Mbit/s
95th percentile per-packet one-way delay: 47.544 ms
Loss rate: 1.25%
```

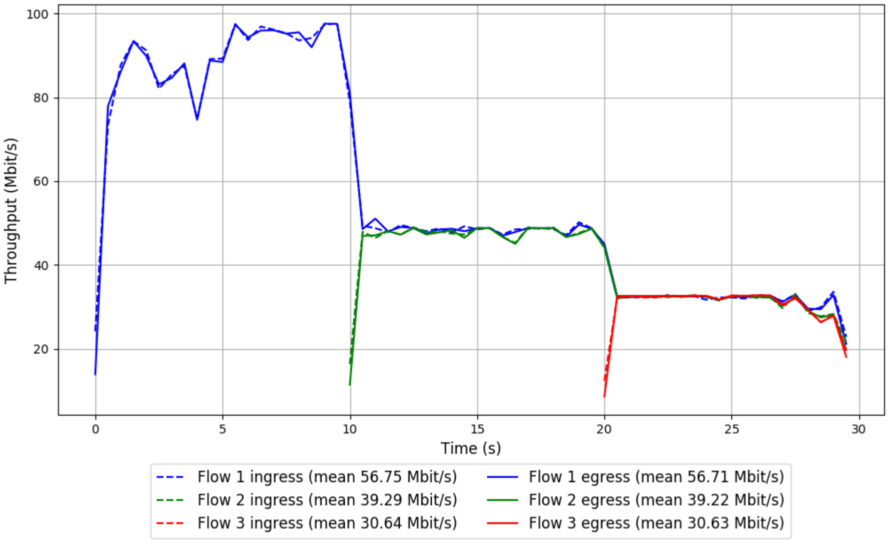
Run 3: Report of Indigo-1-32 — Data Link

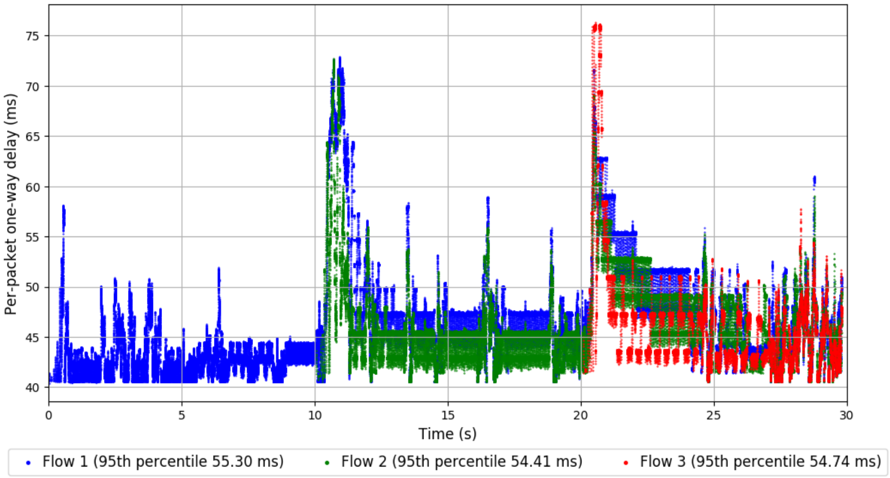




```
Run 4: Statistics of Indigo-1-32

Start at: 2018-04-03 18:15:54
End at: 2018-04-03 18:16:24
Local clock offset: 0.174 ms
Remote clock offset: -4.286 ms

# Below is generated by plot.py at 2018-04-04 02:45:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.73 Mbit/s
95th percentile per-packet one-way delay: 55.222 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 56.71 Mbit/s
95th percentile per-packet one-way delay: 55.300 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 39.22 Mbit/s
95th percentile per-packet one-way delay: 54.405 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 30.63 Mbit/s
95th percentile per-packet one-way delay: 54.738 ms
Loss rate: 0.74%
```

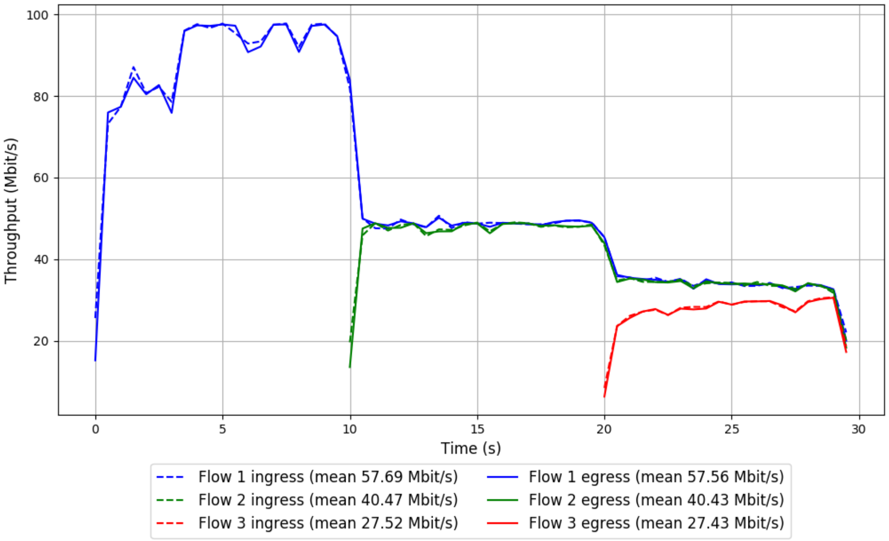
Run 4: Report of Indigo-1-32 — Data Link

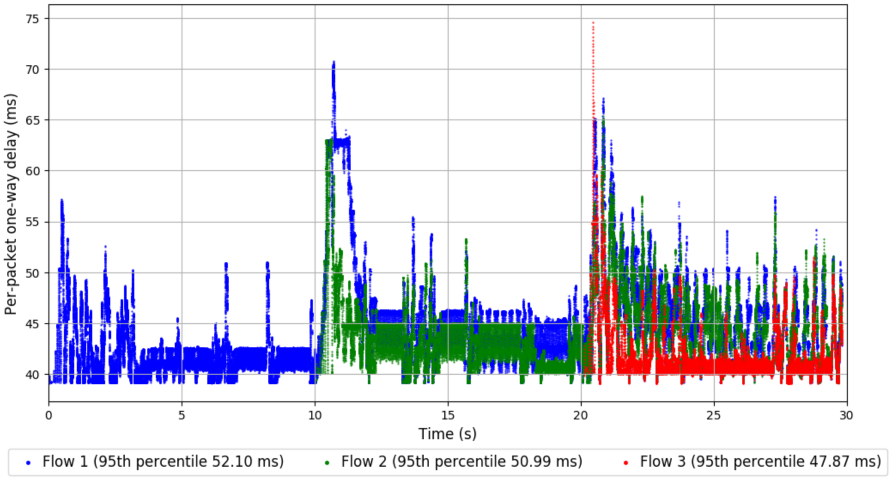




```
Run 5: Statistics of Indigo-1-32

Start at: 2018-04-03 18:41:16
End at: 2018-04-03 18:41:46
Local clock offset: -0.099 ms
Remote clock offset: -7.739 ms

# Below is generated by plot.py at 2018-04-04 02:46:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.29 Mbit/s
95th percentile per-packet one-way delay: 51.290 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 57.56 Mbit/s
95th percentile per-packet one-way delay: 52.097 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 40.43 Mbit/s
95th percentile per-packet one-way delay: 50.993 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 27.43 Mbit/s
95th percentile per-packet one-way delay: 47.866 ms
Loss rate: 1.01%
```

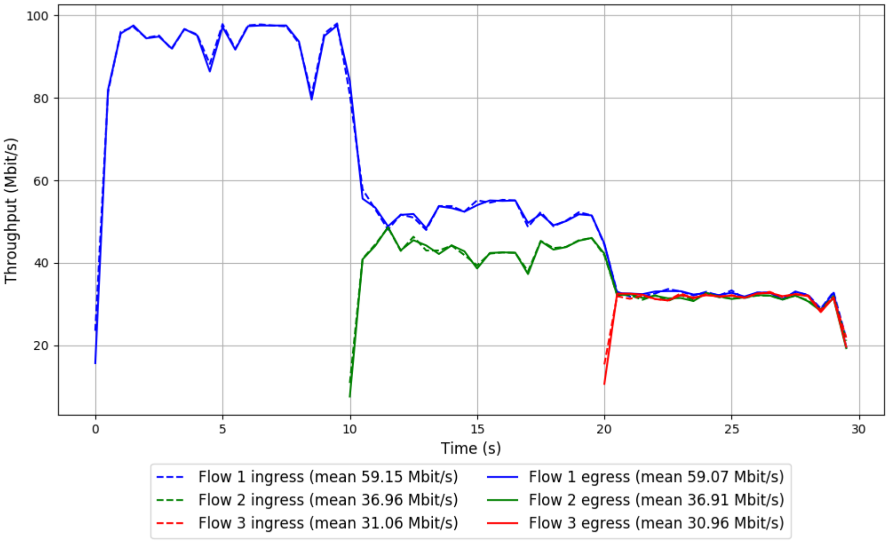
Run 5: Report of Indigo-1-32 — Data Link

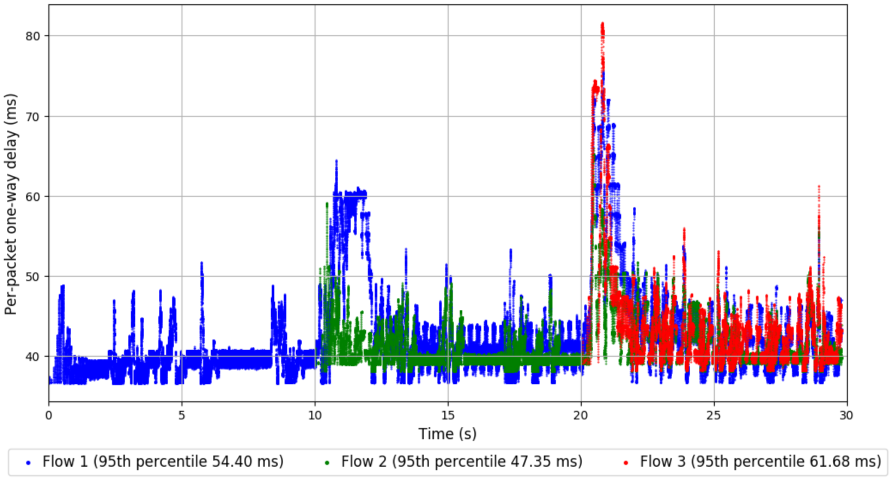




```
Run 6: Statistics of Indigo-1-32

Start at: 2018-04-03 19:06:30
End at: 2018-04-03 19:07:00
Local clock offset: -0.116 ms
Remote clock offset: -3.166 ms

# Below is generated by plot.py at 2018-04-04 02:46:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.68 Mbit/s
95th percentile per-packet one-way delay: 51.709 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 59.07 Mbit/s
95th percentile per-packet one-way delay: 54.404 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 36.91 Mbit/s
95th percentile per-packet one-way delay: 47.350 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 30.96 Mbit/s
95th percentile per-packet one-way delay: 61.678 ms
Loss rate: 1.01%
```

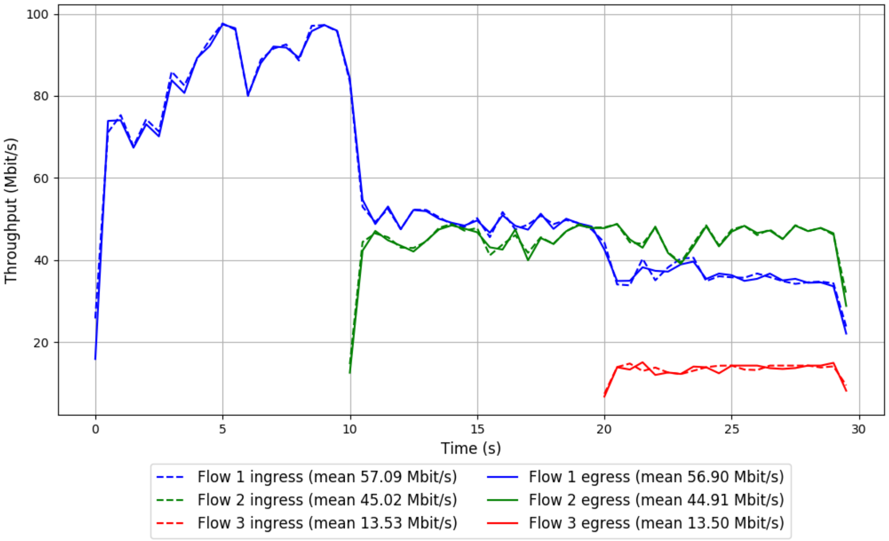
Run 6: Report of Indigo-1-32 — Data Link

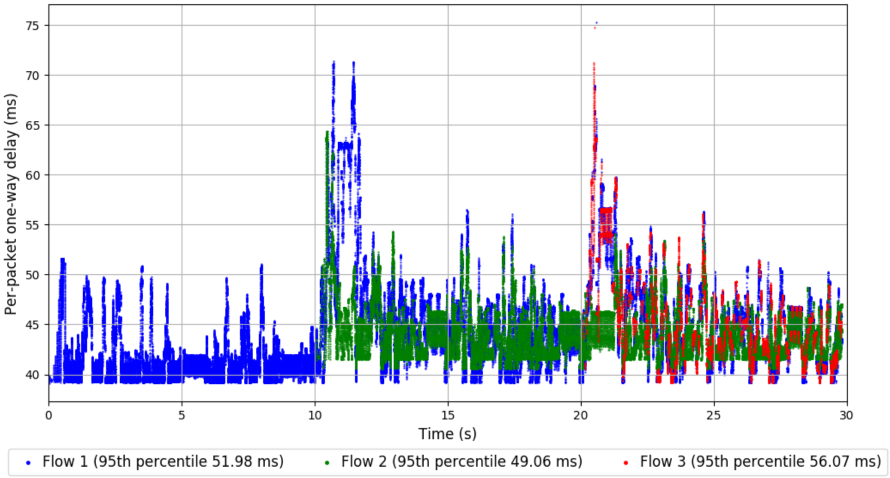




```
Run 7: Statistics of Indigo-1-32

Start at: 2018-04-03 19:31:51
End at: 2018-04-03 19:32:21
Local clock offset: -0.481 ms
Remote clock offset: -5.126 ms

# Below is generated by plot.py at 2018-04-04 02:46:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.09 Mbit/s
95th percentile per-packet one-way delay: 51.157 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 56.90 Mbit/s
95th percentile per-packet one-way delay: 51.981 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 44.91 Mbit/s
95th percentile per-packet one-way delay: 49.065 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 13.50 Mbit/s
95th percentile per-packet one-way delay: 56.072 ms
Loss rate: 1.00%
```

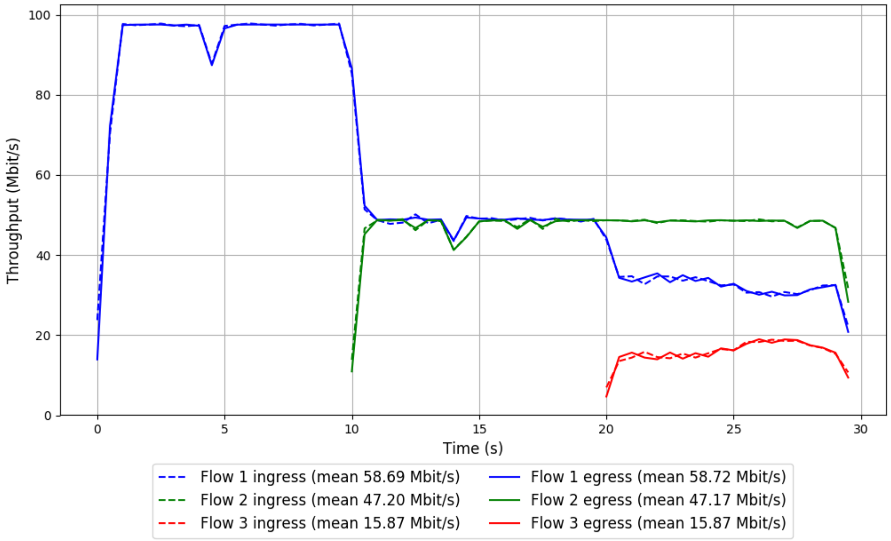
Run 7: Report of Indigo-1-32 — Data Link

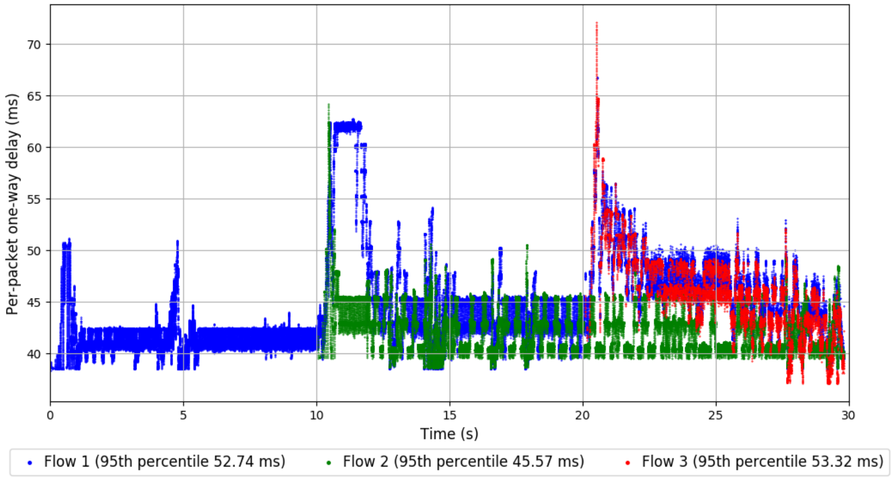




```
Run 8: Statistics of Indigo-1-32

Start at: 2018-04-03 19:56:49
End at: 2018-04-03 19:57:19
Local clock offset: 0.16 ms
Remote clock offset: -3.252 ms

# Below is generated by plot.py at 2018-04-04 02:46:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.16 Mbit/s
95th percentile per-packet one-way delay: 50.338 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 58.72 Mbit/s
95th percentile per-packet one-way delay: 52.744 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 47.17 Mbit/s
95th percentile per-packet one-way delay: 45.566 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 15.87 Mbit/s
95th percentile per-packet one-way delay: 53.324 ms
Loss rate: 0.76%
```

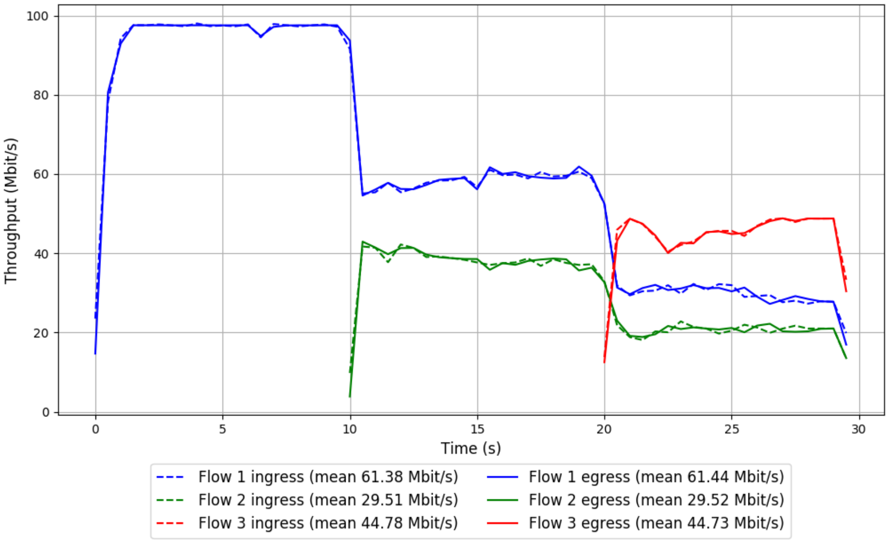
Run 8: Report of Indigo-1-32 — Data Link

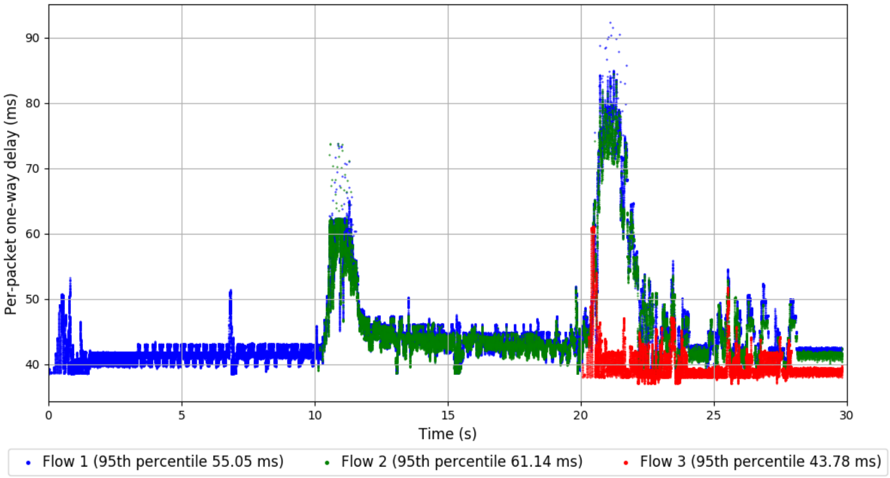




```
Run 9: Statistics of Indigo-1-32

Start at: 2018-04-03 20:21:48
End at: 2018-04-03 20:22:18
Local clock offset: 0.744 ms
Remote clock offset: -1.647 ms

# Below is generated by plot.py at 2018-04-04 02:46:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.54 Mbit/s
95th percentile per-packet one-way delay: 55.906 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 61.44 Mbit/s
95th percentile per-packet one-way delay: 55.052 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 29.52 Mbit/s
95th percentile per-packet one-way delay: 61.140 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 44.73 Mbit/s
95th percentile per-packet one-way delay: 43.778 ms
Loss rate: 0.82%
```

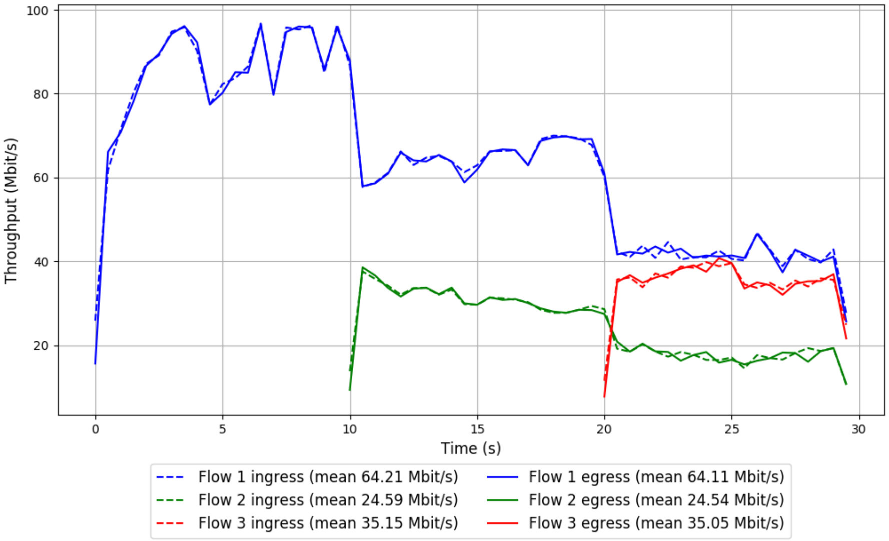
Run 9: Report of Indigo-1-32 — Data Link

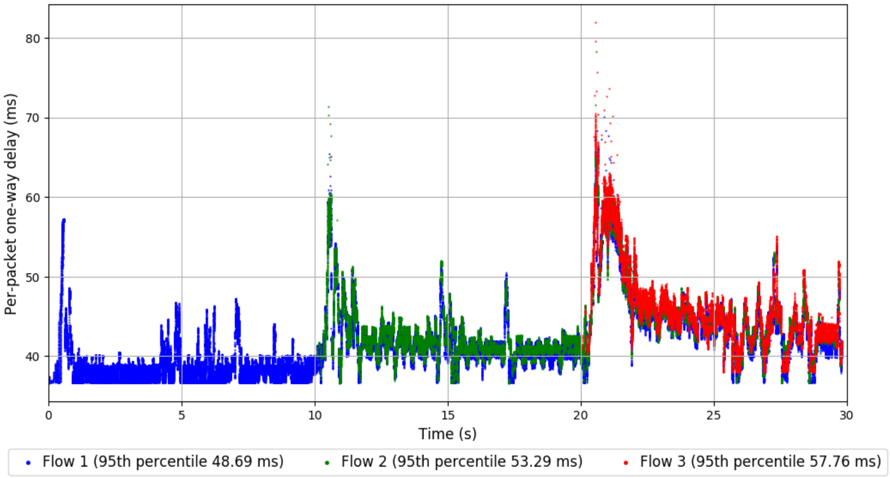




```
Run 10: Statistics of Indigo-1-32

Start at: 2018-04-03 20:46:55
End at: 2018-04-03 20:47:25
Local clock offset: 0.73 ms
Remote clock offset: -1.356 ms

# Below is generated by plot.py at 2018-04-04 02:46:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.77 Mbit/s
95th percentile per-packet one-way delay: 51.496 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 64.11 Mbit/s
95th percentile per-packet one-way delay: 48.687 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 24.54 Mbit/s
95th percentile per-packet one-way delay: 53.290 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 35.05 Mbit/s
95th percentile per-packet one-way delay: 57.763 ms
Loss rate: 0.98%
```

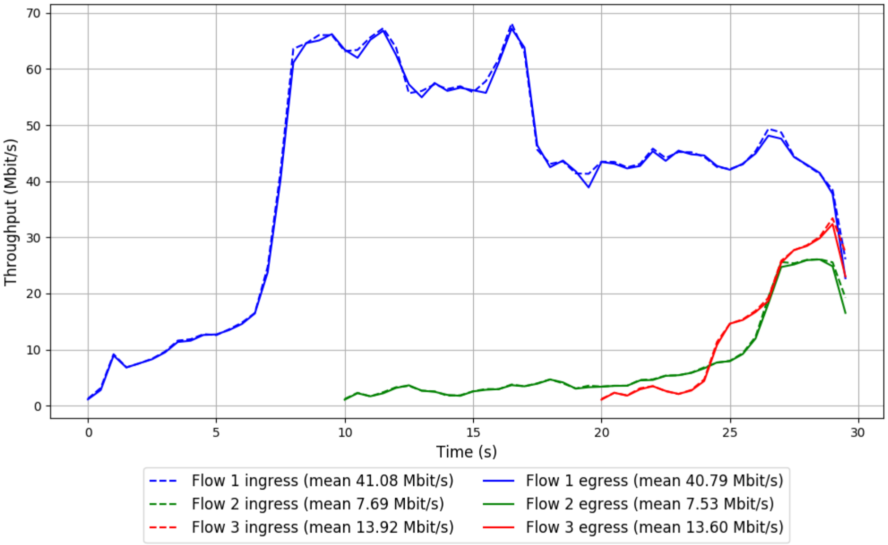
Run 10: Report of Indigo-1-32 — Data Link

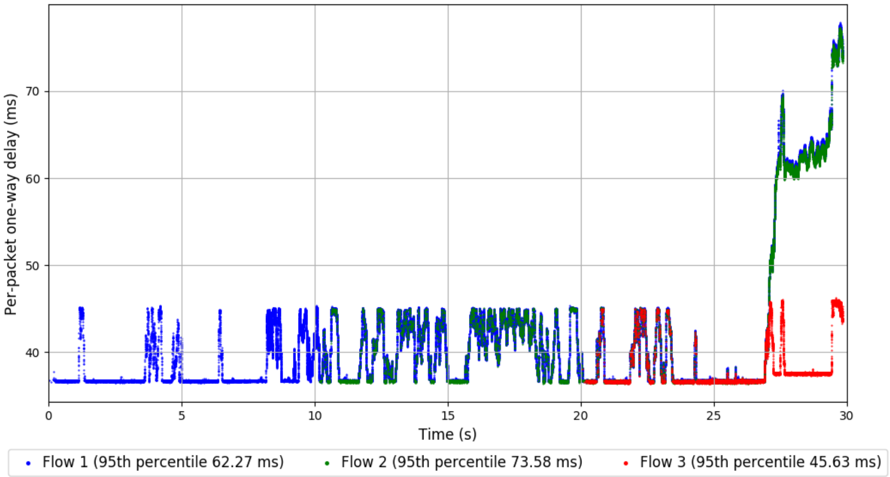




```
Run 1: Statistics of Vivace-latency

Start at: 2018-04-03 17:14:56
End at: 2018-04-03 17:15:26
Local clock offset: 0.42 ms
Remote clock offset: -2.321 ms

# Below is generated by plot.py at 2018-04-04 02:46:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.25 Mbit/s
95th percentile per-packet one-way delay: 62.846 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 40.79 Mbit/s
95th percentile per-packet one-way delay: 62.269 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 7.53 Mbit/s
95th percentile per-packet one-way delay: 73.583 ms
Loss rate: 2.49%
-- Flow 3:
Average throughput: 13.60 Mbit/s
95th percentile per-packet one-way delay: 45.631 ms
Loss rate: 2.97%
```

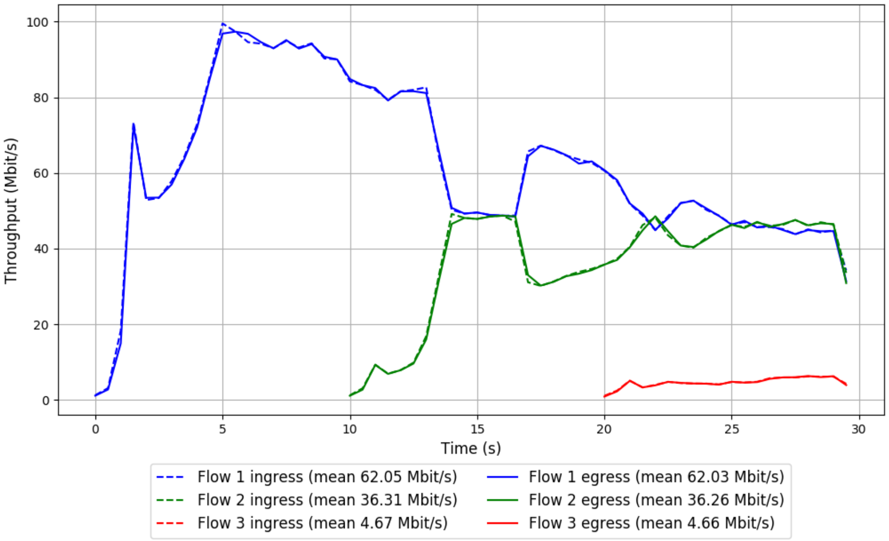
Run 1: Report of Vivace-latency — Data Link

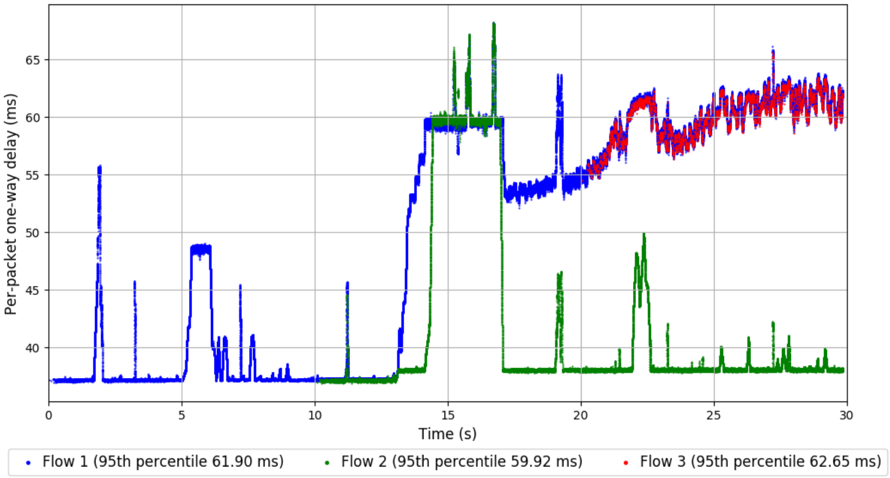




```
Run 2: Statistics of Vivace-latency

Start at: 2018-04-03 17:40:04
End at: 2018-04-03 17:40:34
Local clock offset: 0.505 ms
Remote clock offset: -4.521 ms

# Below is generated by plot.py at 2018-04-04 02:46:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.65 Mbit/s
95th percentile per-packet one-way delay: 61.788 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 62.03 Mbit/s
95th percentile per-packet one-way delay: 61.900 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 36.26 Mbit/s
95th percentile per-packet one-way delay: 59.916 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 4.66 Mbit/s
95th percentile per-packet one-way delay: 62.650 ms
Loss rate: 1.06%
```

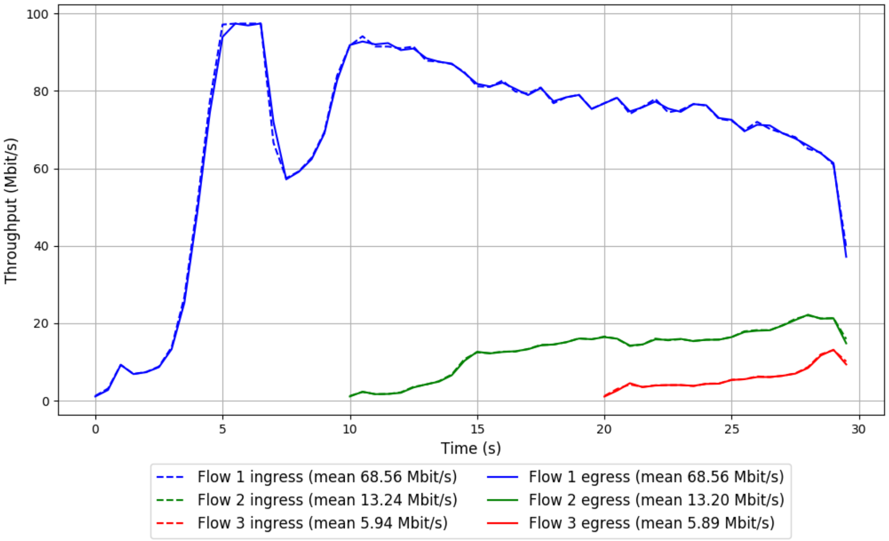
Run 2: Report of Vivace-latency — Data Link

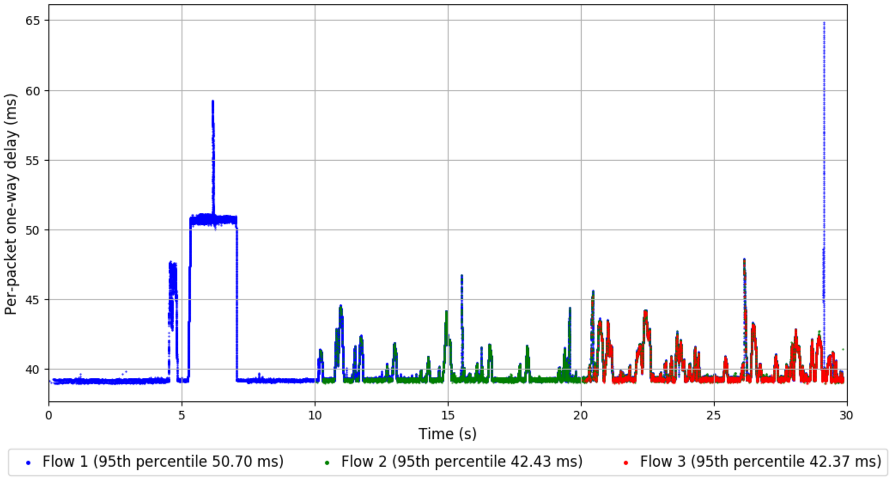




```
Run 3: Statistics of Vivace-latency

Start at: 2018-04-03 18:04:54
End at: 2018-04-03 18:05:24
Local clock offset: 0.255 ms
Remote clock offset: -4.501 ms

# Below is generated by plot.py at 2018-04-04 02:47:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.26 Mbit/s
95th percentile per-packet one-way delay: 50.665 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 68.56 Mbit/s
95th percentile per-packet one-way delay: 50.698 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 13.20 Mbit/s
95th percentile per-packet one-way delay: 42.433 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 5.89 Mbit/s
95th percentile per-packet one-way delay: 42.373 ms
Loss rate: 1.57%
```

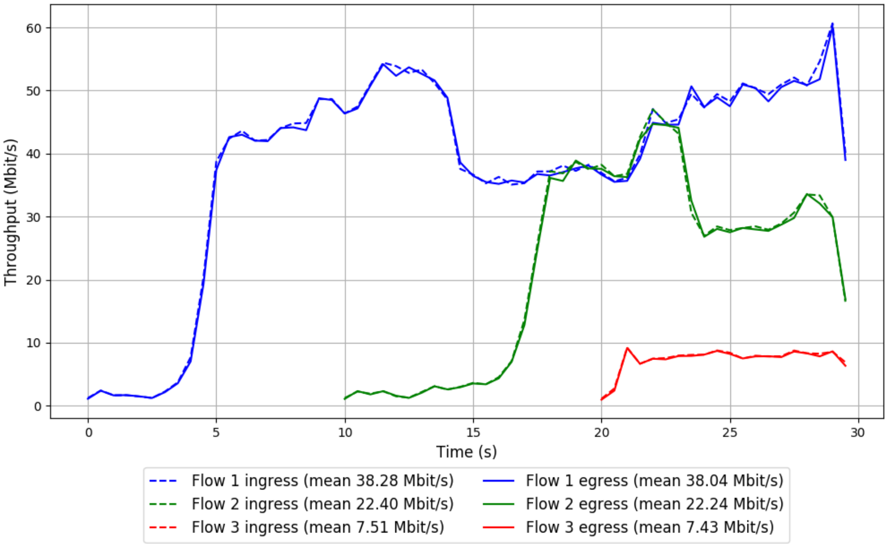
Run 3: Report of Vivace-latency — Data Link

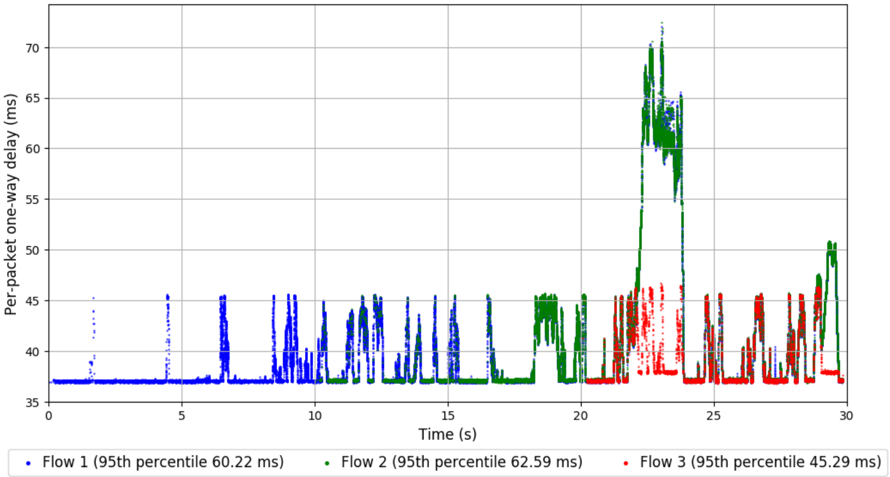




```
Run 4: Statistics of Vivace-latency

Start at: 2018-04-03 18:30:06
End at: 2018-04-03 18:30:36
Local clock offset: 0.144 ms
Remote clock offset: -4.695 ms

# Below is generated by plot.py at 2018-04-04 02:47:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.25 Mbit/s
95th percentile per-packet one-way delay: 61.182 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 38.04 Mbit/s
95th percentile per-packet one-way delay: 60.221 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 22.24 Mbit/s
95th percentile per-packet one-way delay: 62.587 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 7.43 Mbit/s
95th percentile per-packet one-way delay: 45.289 ms
Loss rate: 1.71%
```

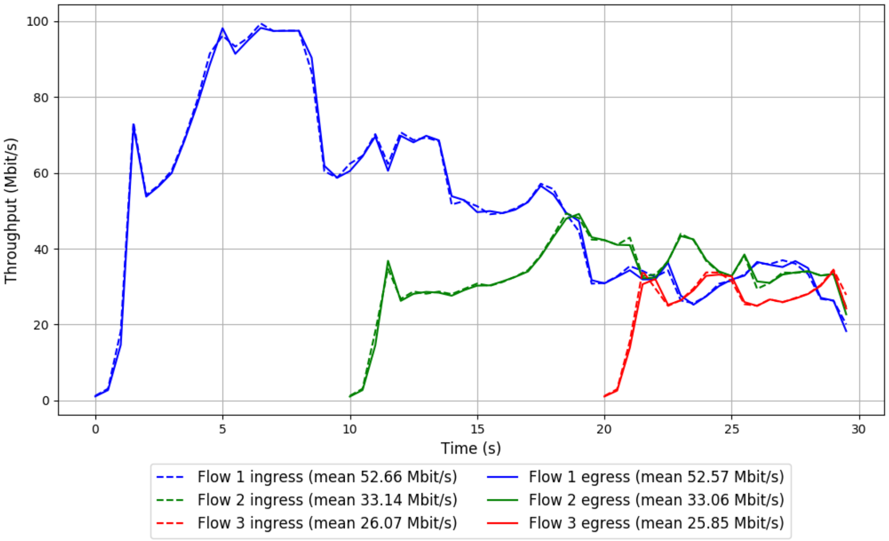
Run 4: Report of Vivace-latency — Data Link

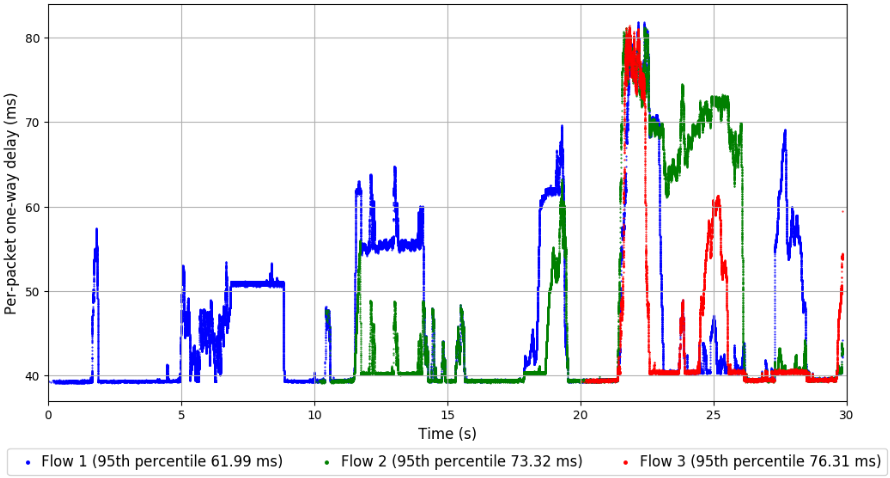




```
Run 5: Statistics of Vivace-latency

Start at: 2018-04-03 18:55:28
End at: 2018-04-03 18:55:58
Local clock offset: -0.106 ms
Remote clock offset: -7.59 ms

# Below is generated by plot.py at 2018-04-04 02:47:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.02 Mbit/s
95th percentile per-packet one-way delay: 70.406 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 52.57 Mbit/s
95th percentile per-packet one-way delay: 61.992 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 33.06 Mbit/s
95th percentile per-packet one-way delay: 73.317 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 25.85 Mbit/s
95th percentile per-packet one-way delay: 76.312 ms
Loss rate: 1.47%
```

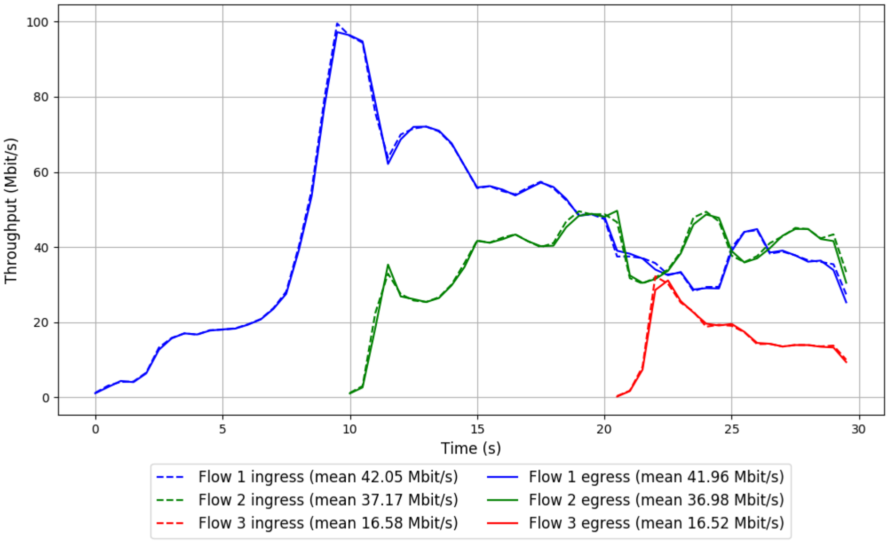
Run 5: Report of Vivace-latency — Data Link

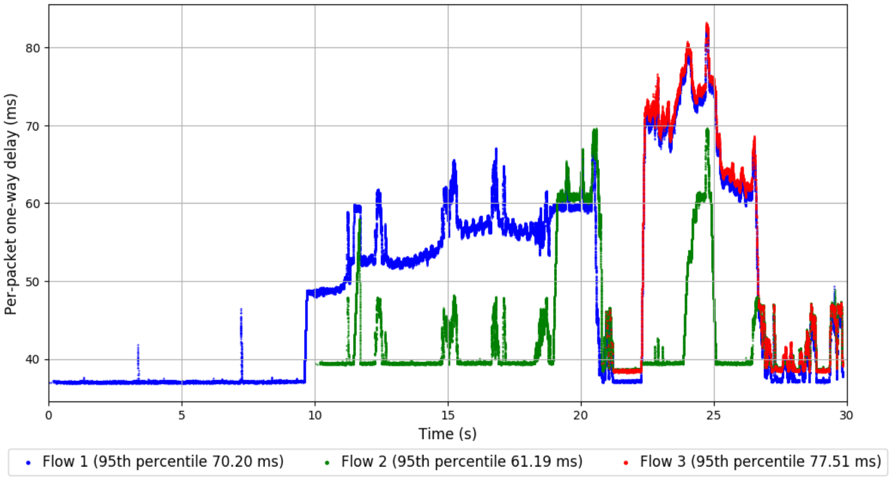




```
Run 6: Statistics of Vivace-latency

Start at: 2018-04-03 19:20:41
End at: 2018-04-03 19:21:11
Local clock offset: -0.52 ms
Remote clock offset: -3.021 ms

# Below is generated by plot.py at 2018-04-04 02:47:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.54 Mbit/s
95th percentile per-packet one-way delay: 70.957 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 41.96 Mbit/s
95th percentile per-packet one-way delay: 70.199 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 36.98 Mbit/s
95th percentile per-packet one-way delay: 61.189 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 16.52 Mbit/s
95th percentile per-packet one-way delay: 77.513 ms
Loss rate: 1.10%
```

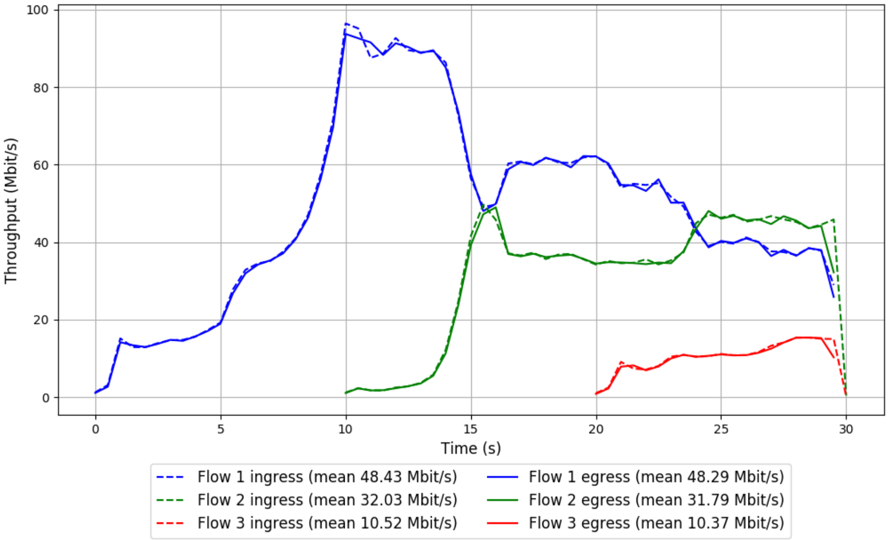
Run 6: Report of Vivace-latency — Data Link

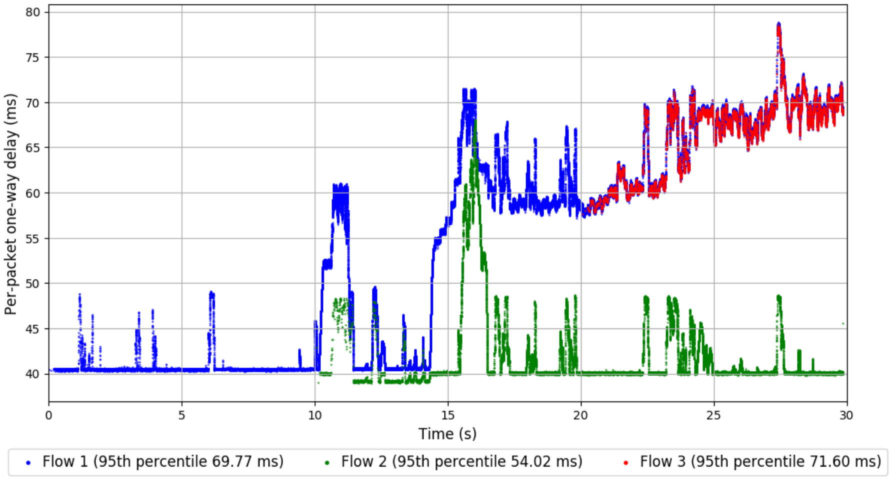




```
Run 7: Statistics of Vivace-latency

Start at: 2018-04-03 19:45:44
End at: 2018-04-03 19:46:14
Local clock offset: 0.011 ms
Remote clock offset: -5.295 ms

# Below is generated by plot.py at 2018-04-04 02:47:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.79 Mbit/s
95th percentile per-packet one-way delay: 69.568 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 48.29 Mbit/s
95th percentile per-packet one-way delay: 69.766 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 31.79 Mbit/s
95th percentile per-packet one-way delay: 54.020 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 10.37 Mbit/s
95th percentile per-packet one-way delay: 71.598 ms
Loss rate: 3.49%
```

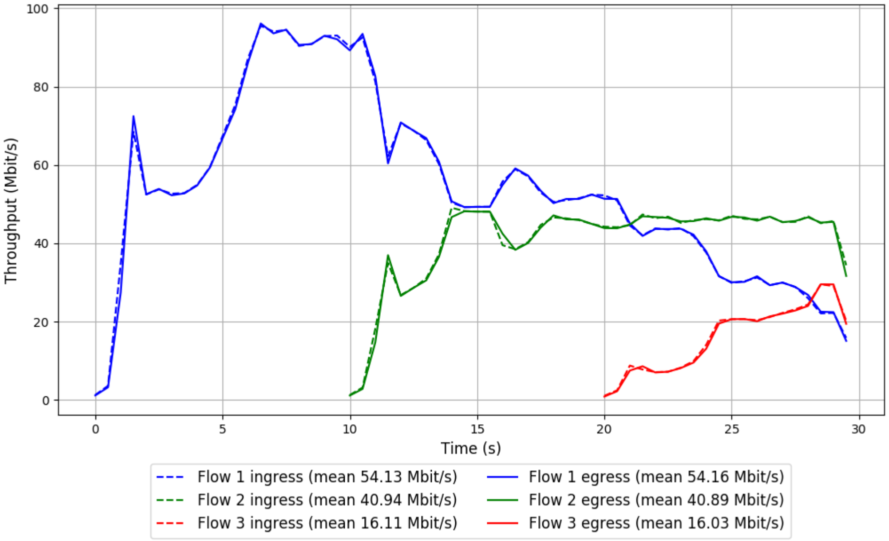
Run 7: Report of Vivace-latency — Data Link

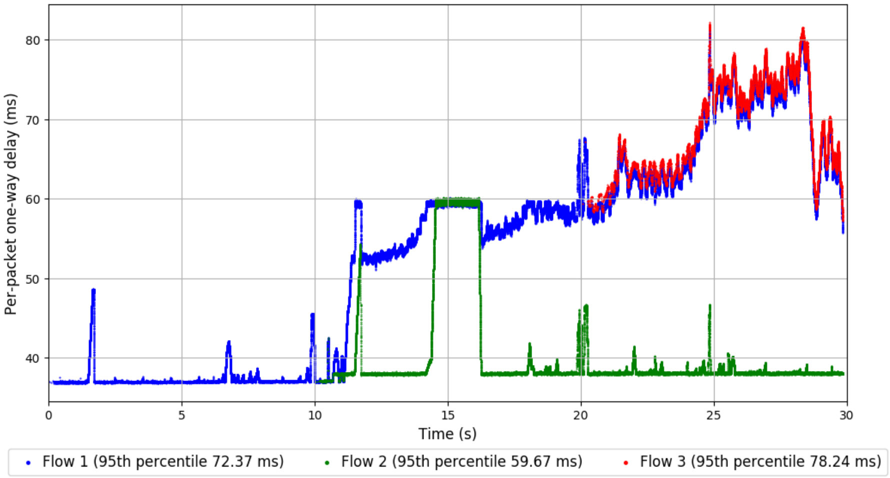




```
Run 8: Statistics of Vivace-latency

Start at: 2018-04-03 20:10:48
End at: 2018-04-03 20:11:18
Local clock offset: 0.447 ms
Remote clock offset: -2.352 ms

# Below is generated by plot.py at 2018-04-04 02:47:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.58 Mbit/s
95th percentile per-packet one-way delay: 73.345 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 54.16 Mbit/s
95th percentile per-packet one-way delay: 72.368 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 40.89 Mbit/s
95th percentile per-packet one-way delay: 59.667 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 16.03 Mbit/s
95th percentile per-packet one-way delay: 78.242 ms
Loss rate: 1.40%
```

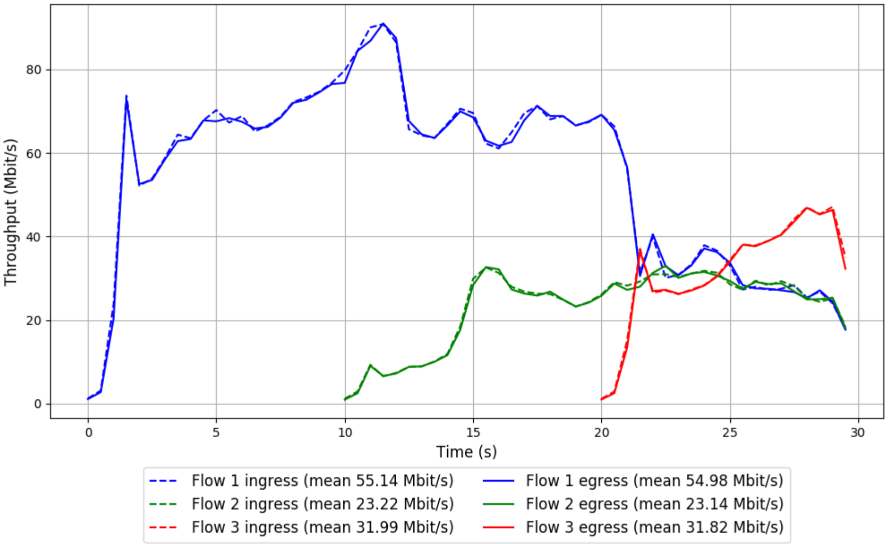
Run 8: Report of Vivace-latency — Data Link

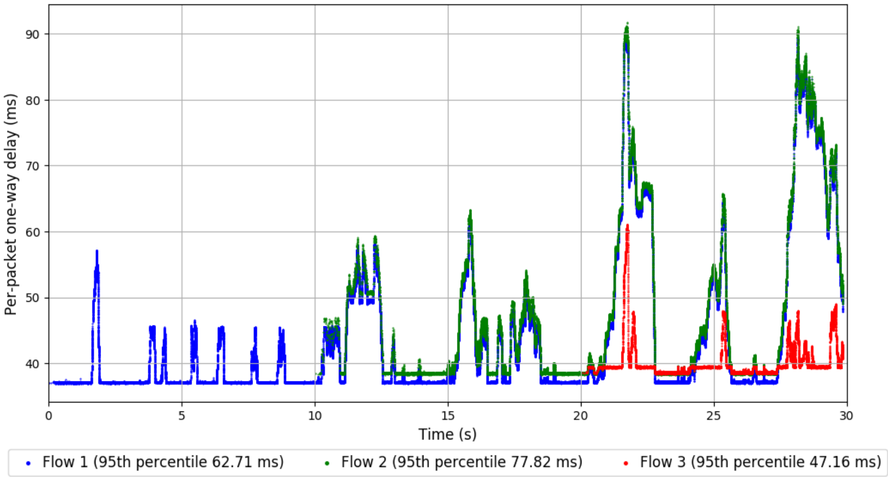




```
Run 9: Statistics of Vivace-latency

Start at: 2018-04-03 20:35:39
End at: 2018-04-03 20:36:09
Local clock offset: 0.928 ms
Remote clock offset: -1.259 ms

# Below is generated by plot.py at 2018-04-04 02:47:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.80 Mbit/s
95th percentile per-packet one-way delay: 66.242 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 54.98 Mbit/s
95th percentile per-packet one-way delay: 62.713 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 23.14 Mbit/s
95th percentile per-packet one-way delay: 77.816 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 47.162 ms
Loss rate: 1.21%
```

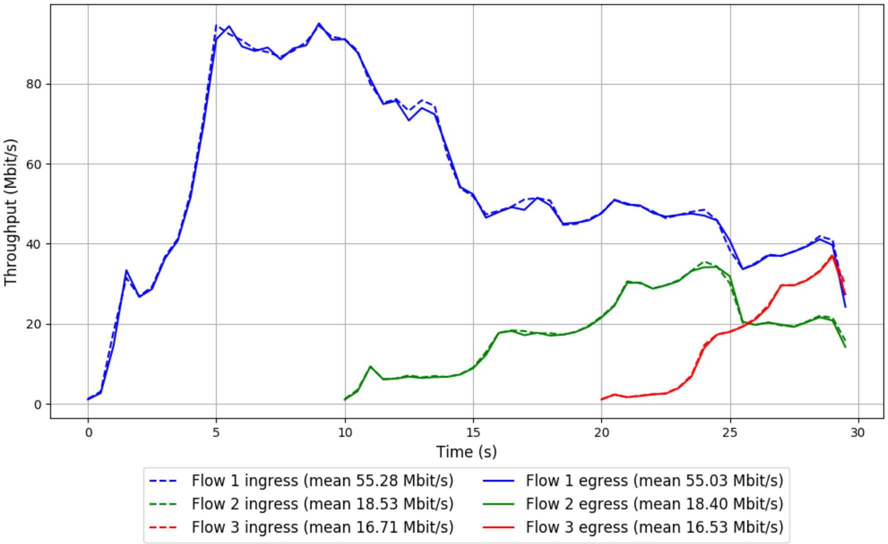
Run 9: Report of Vivace-latency — Data Link

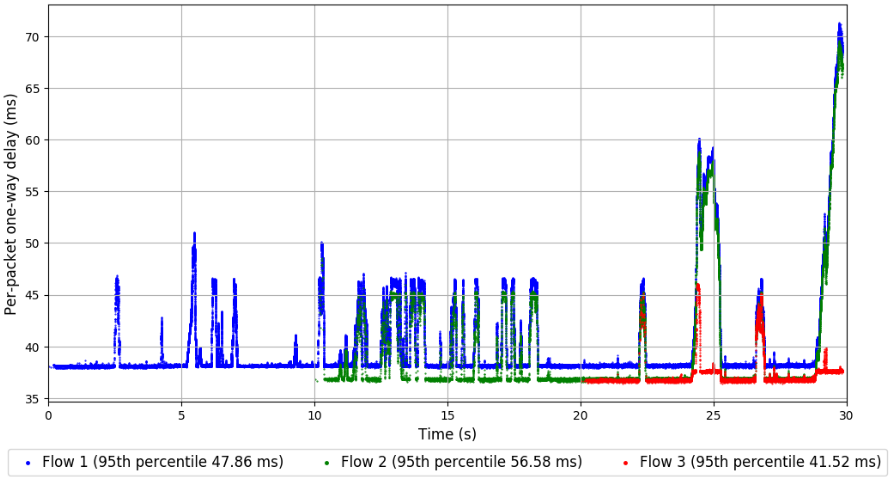




```
Run 10: Statistics of Vivace-latency

Start at: 2018-04-03 21:01:05
End at: 2018-04-03 21:01:35
Local clock offset: 0.696 ms
Remote clock offset: -1.933 ms

# Below is generated by plot.py at 2018-04-04 02:48:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.69 Mbit/s
95th percentile per-packet one-way delay: 49.425 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 55.03 Mbit/s
95th percentile per-packet one-way delay: 47.863 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 18.40 Mbit/s
95th percentile per-packet one-way delay: 56.576 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 16.53 Mbit/s
95th percentile per-packet one-way delay: 41.524 ms
Loss rate: 1.72%
```

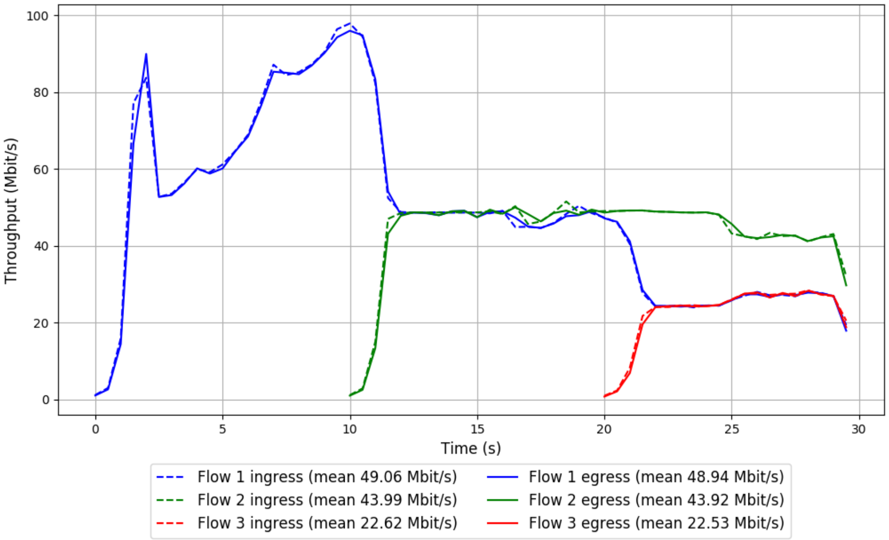
Run 10: Report of Vivace-latency — Data Link

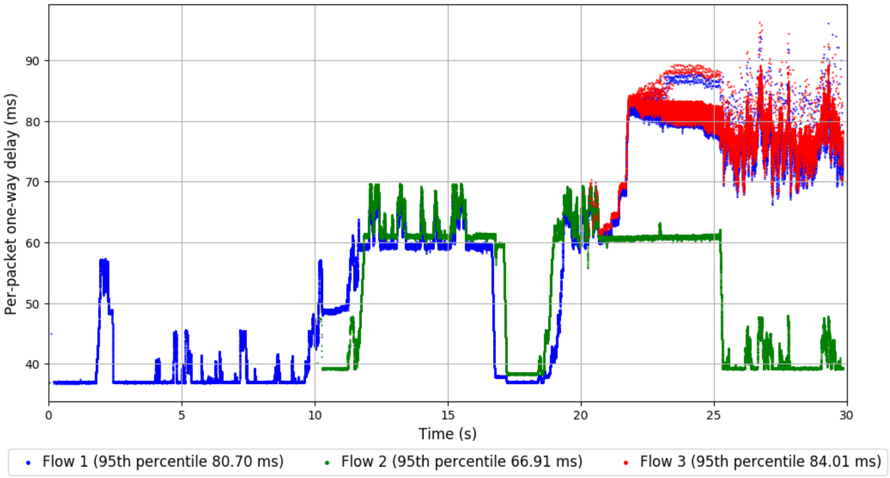




```
Run 1: Statistics of Vivace-loss

Start at: 2018-04-03 17:23:20
End at: 2018-04-03 17:23:50
Local clock offset: 0.348 ms
Remote clock offset: -3.595 ms

# Below is generated by plot.py at 2018-04-04 02:48:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.48 Mbit/s
95th percentile per-packet one-way delay: 81.341 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 48.94 Mbit/s
95th percentile per-packet one-way delay: 80.699 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 43.92 Mbit/s
95th percentile per-packet one-way delay: 66.908 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 22.53 Mbit/s
95th percentile per-packet one-way delay: 84.013 ms
Loss rate: 1.49%
```

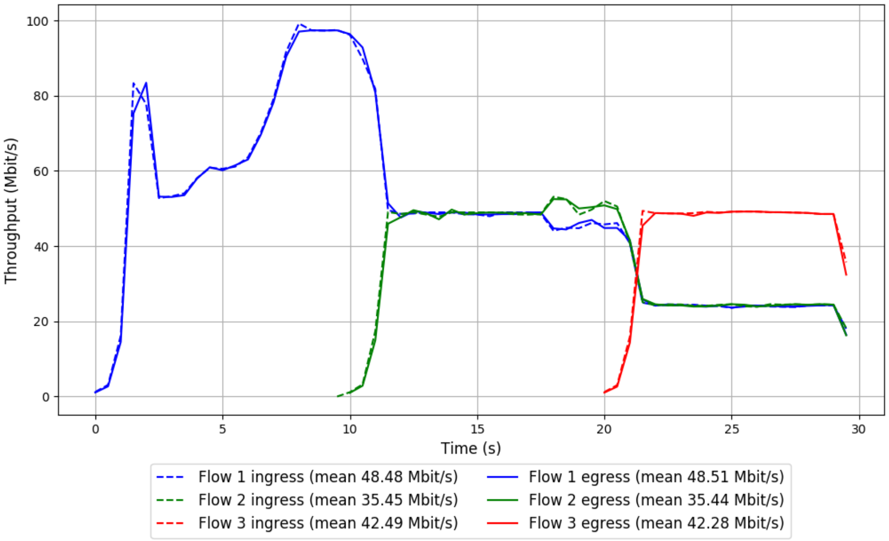
Run 1: Report of Vivace-loss — Data Link

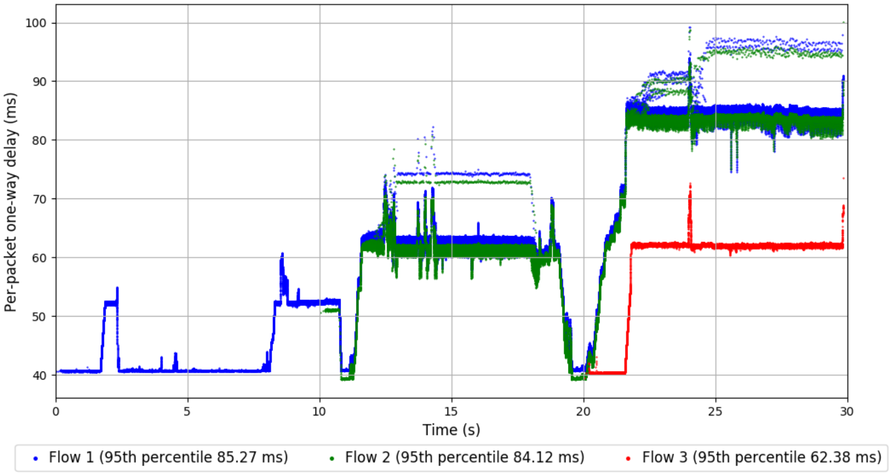




```
Run 2: Statistics of Vivace-loss

Start at: 2018-04-03 17:48:16
End at: 2018-04-03 17:48:46
Local clock offset: 0.505 ms
Remote clock offset: -6.04 ms

# Below is generated by plot.py at 2018-04-04 02:48:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.93 Mbit/s
95th percentile per-packet one-way delay: 84.928 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 48.51 Mbit/s
95th percentile per-packet one-way delay: 85.267 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 35.44 Mbit/s
95th percentile per-packet one-way delay: 84.121 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 42.28 Mbit/s
95th percentile per-packet one-way delay: 62.380 ms
Loss rate: 1.22%
```

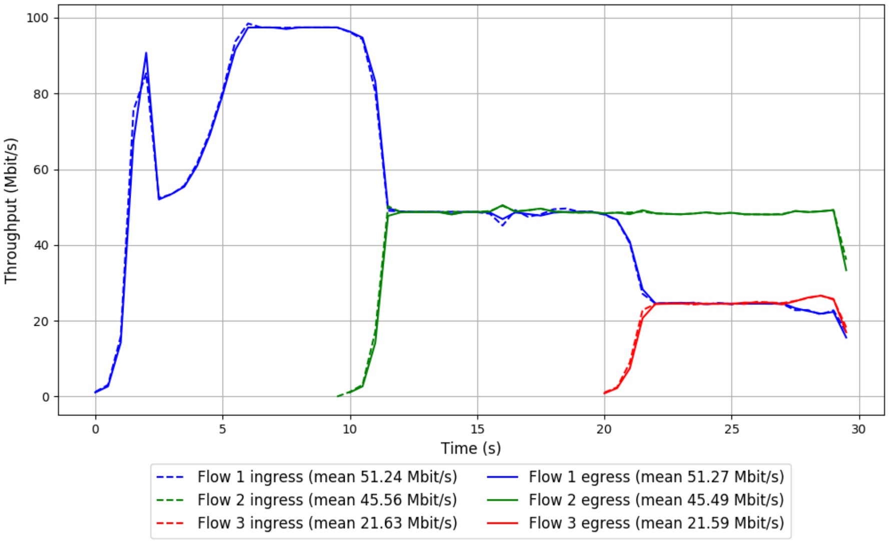
Run 2: Report of Vivace-loss — Data Link

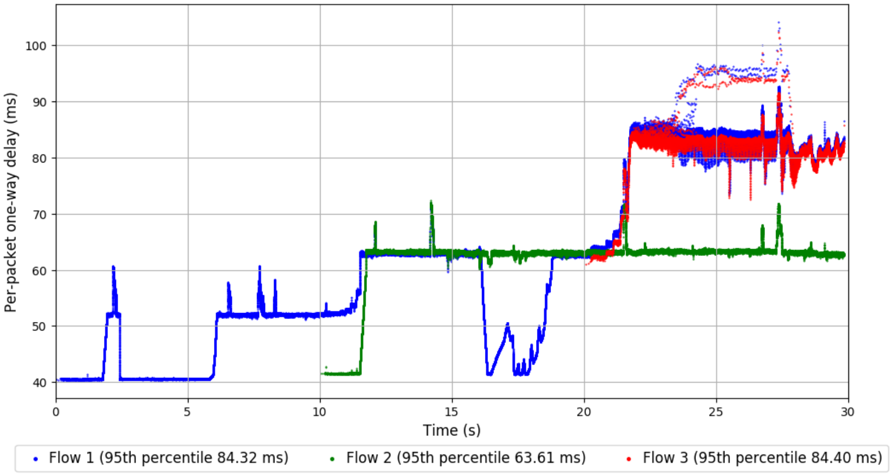




```
Run 3: Statistics of Vivace-loss

Start at: 2018-04-03 18:13:06
End at: 2018-04-03 18:13:36
Local clock offset: 0.285 ms
Remote clock offset: -4.281 ms

# Below is generated by plot.py at 2018-04-04 02:48:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.57 Mbit/s
95th percentile per-packet one-way delay: 83.690 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 51.27 Mbit/s
95th percentile per-packet one-way delay: 84.324 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 45.49 Mbit/s
95th percentile per-packet one-way delay: 63.614 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 21.59 Mbit/s
95th percentile per-packet one-way delay: 84.404 ms
Loss rate: 1.29%
```

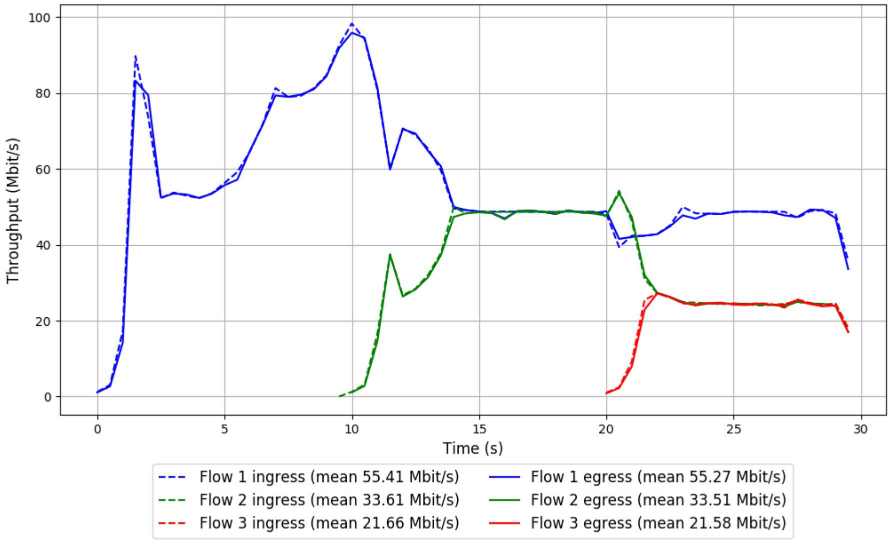
Run 3: Report of Vivace-loss — Data Link

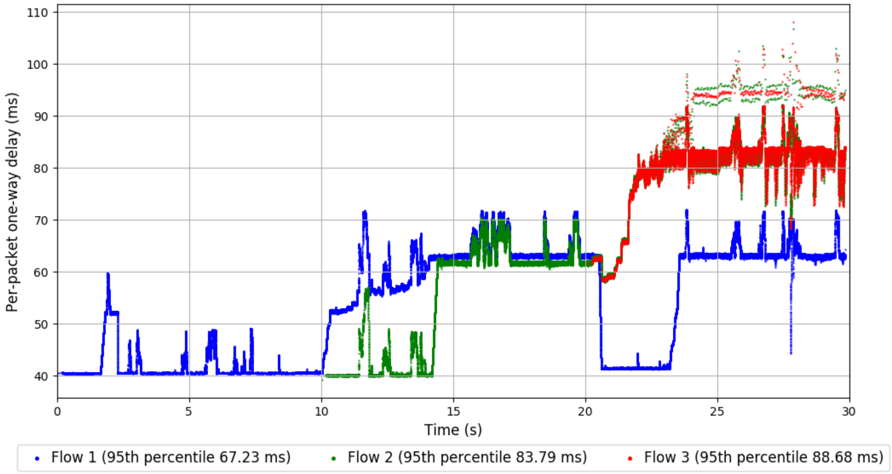




```
Run 4: Statistics of Vivace-loss

Start at: 2018-04-03 18:38:24
End at: 2018-04-03 18:38:54
Local clock offset: 0.006 ms
Remote clock offset: -7.434 ms

# Below is generated by plot.py at 2018-04-04 02:48:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.61 Mbit/s
95th percentile per-packet one-way delay: 83.476 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 55.27 Mbit/s
95th percentile per-packet one-way delay: 67.228 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 33.51 Mbit/s
95th percentile per-packet one-way delay: 83.788 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 21.58 Mbit/s
95th percentile per-packet one-way delay: 88.679 ms
Loss rate: 1.45%
```

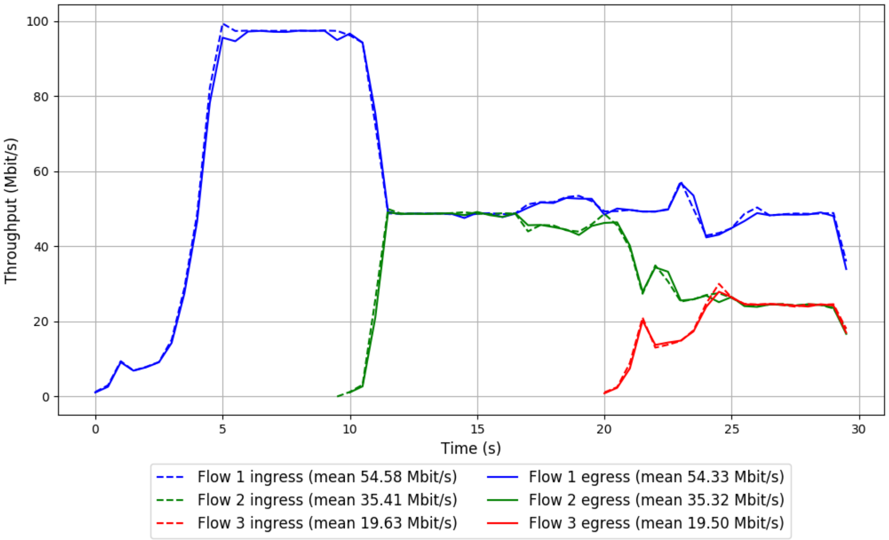
Run 4: Report of Vivace-loss — Data Link

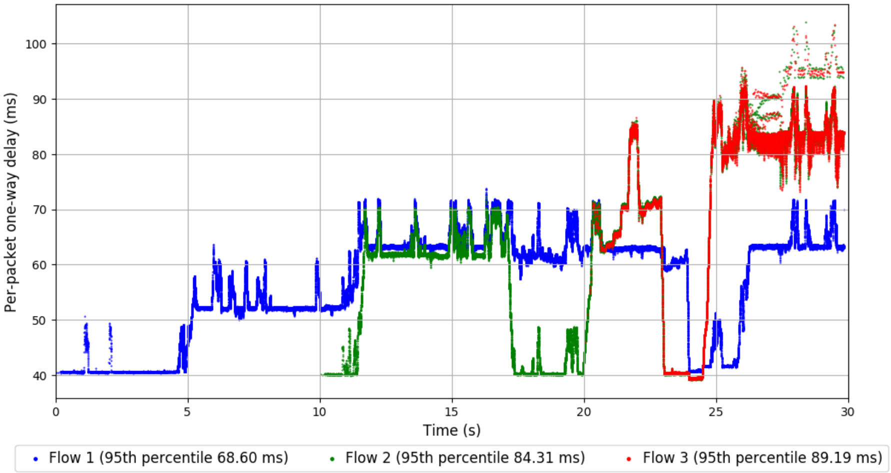




```
Run 5: Statistics of Vivace-loss

Start at: 2018-04-03 19:03:42
End at: 2018-04-03 19:04:12
Local clock offset: -0.076 ms
Remote clock offset: -5.942 ms

# Below is generated by plot.py at 2018-04-04 02:49:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.18 Mbit/s
95th percentile per-packet one-way delay: 83.700 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 54.33 Mbit/s
95th percentile per-packet one-way delay: 68.597 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 35.32 Mbit/s
95th percentile per-packet one-way delay: 84.315 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 19.50 Mbit/s
95th percentile per-packet one-way delay: 89.194 ms
Loss rate: 1.58%
```

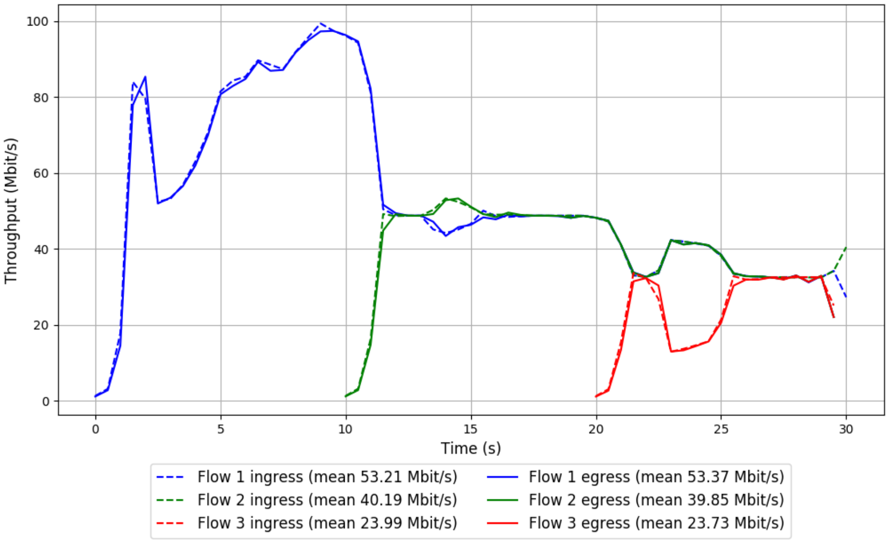
Run 5: Report of Vivace-loss — Data Link

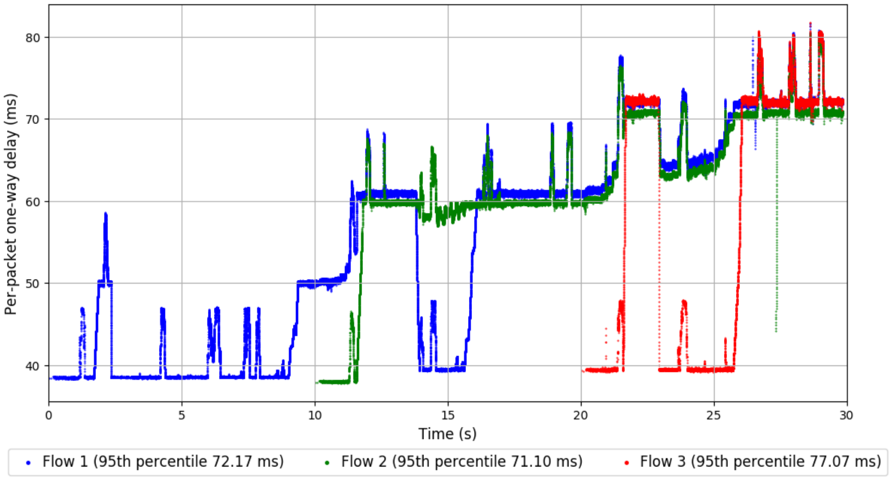




```
Run 6: Statistics of Vivace-loss

Start at: 2018-04-03 19:28:56
End at: 2018-04-03 19:29:26
Local clock offset: -0.666 ms
Remote clock offset: -2.976 ms

# Below is generated by plot.py at 2018-04-04 02:49:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.65 Mbit/s
95th percentile per-packet one-way delay: 72.325 ms
Loss rate: 2.28%
-- Flow 1:
Average throughput: 53.37 Mbit/s
95th percentile per-packet one-way delay: 72.166 ms
Loss rate: 1.62%
-- Flow 2:
Average throughput: 39.85 Mbit/s
95th percentile per-packet one-way delay: 71.101 ms
Loss rate: 3.68%
-- Flow 3:
Average throughput: 23.73 Mbit/s
95th percentile per-packet one-way delay: 77.070 ms
Loss rate: 1.95%
```

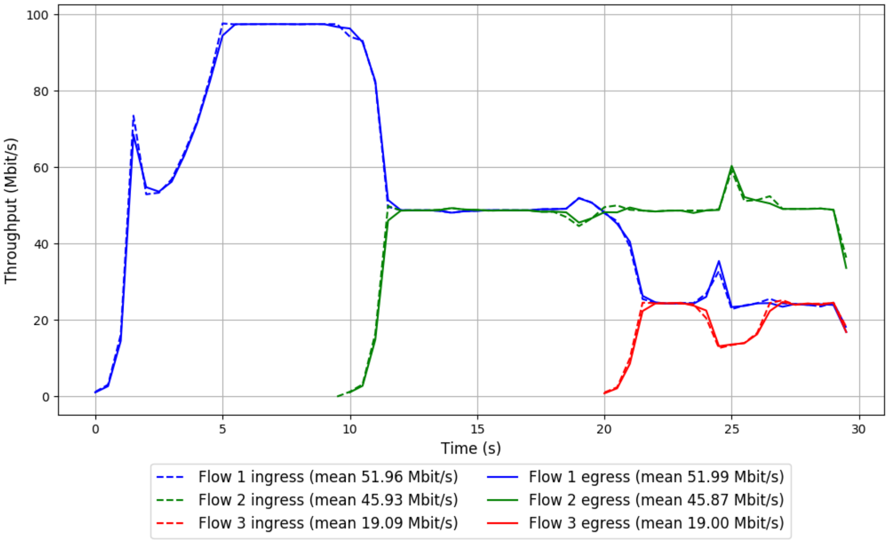
Run 6: Report of Vivace-loss — Data Link

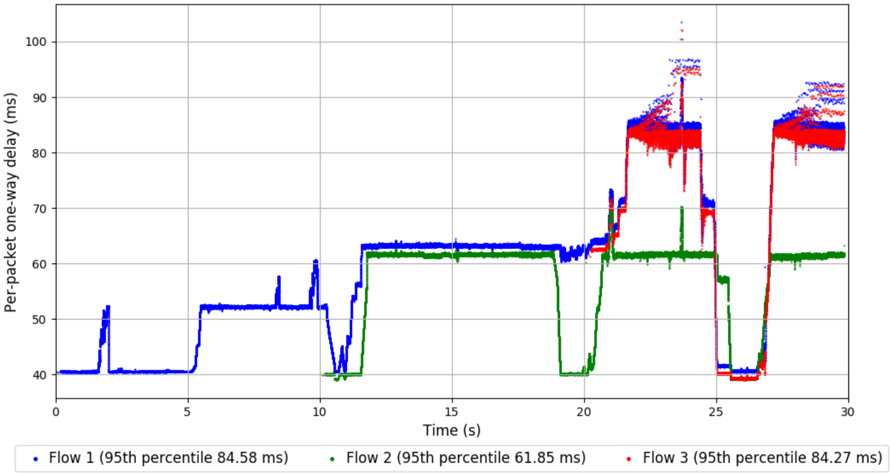




```
Run 7: Statistics of Vivace-loss

Start at: 2018-04-03 19:53:54
End at: 2018-04-03 19:54:24
Local clock offset: 0.038 ms
Remote clock offset: -5.312 ms

# Below is generated by plot.py at 2018-04-04 02:49:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.70 Mbit/s
95th percentile per-packet one-way delay: 83.829 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 51.99 Mbit/s
95th percentile per-packet one-way delay: 84.584 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 45.87 Mbit/s
95th percentile per-packet one-way delay: 61.850 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 19.00 Mbit/s
95th percentile per-packet one-way delay: 84.272 ms
Loss rate: 1.60%
```

Run 7: Report of Vivace-loss — Data Link





```
Run 8: Statistics of Vivace-loss

Start at: 2018-04-03 20:19:01
End at: 2018-04-03 20:19:31
Local clock offset: 0.711 ms
Remote clock offset: -3.882 ms
```

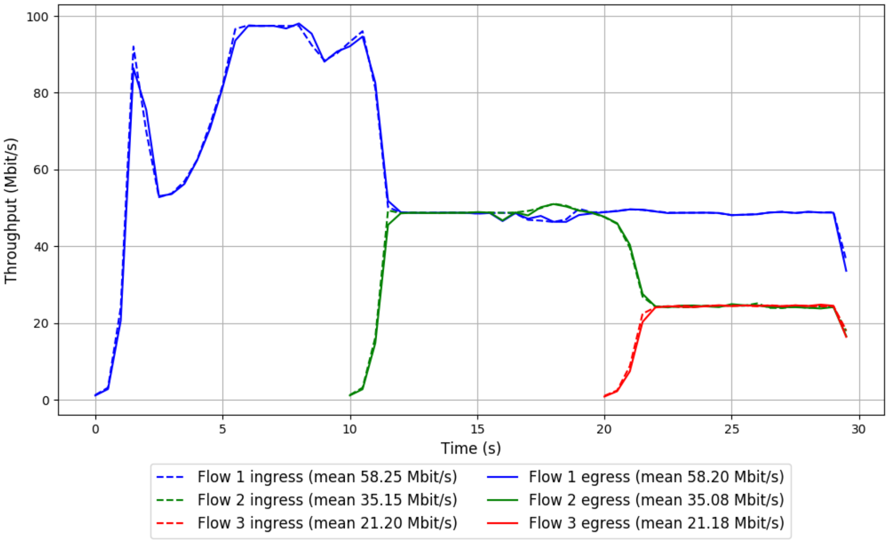
Run 8: Report of Vivace-loss — Data Link

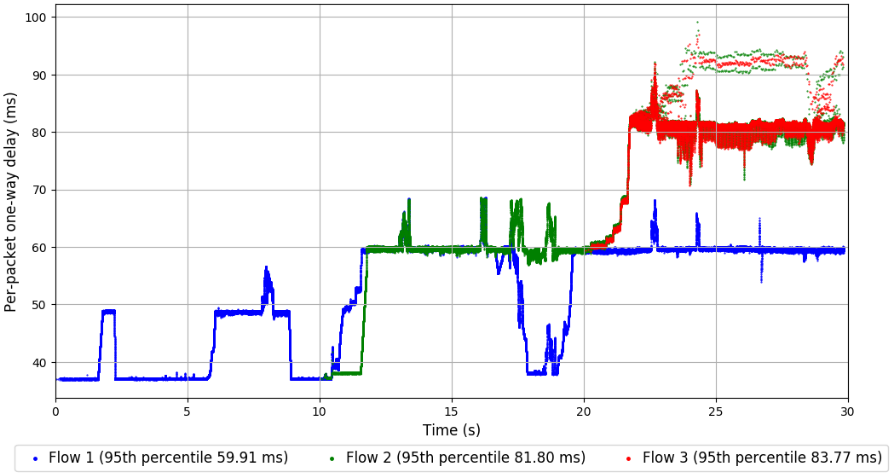
Figure is missing

Figure is missing

```
Run 9: Statistics of Vivace-loss

Start at: 2018-04-03 20:44:05
End at: 2018-04-03 20:44:35
Local clock offset: 0.742 ms
Remote clock offset: -1.787 ms

# Below is generated by plot.py at 2018-04-04 02:49:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.44 Mbit/s
95th percentile per-packet one-way delay: 81.515 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 58.20 Mbit/s
95th percentile per-packet one-way delay: 59.906 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 35.08 Mbit/s
95th percentile per-packet one-way delay: 81.799 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 21.18 Mbit/s
95th percentile per-packet one-way delay: 83.767 ms
Loss rate: 1.32%
```

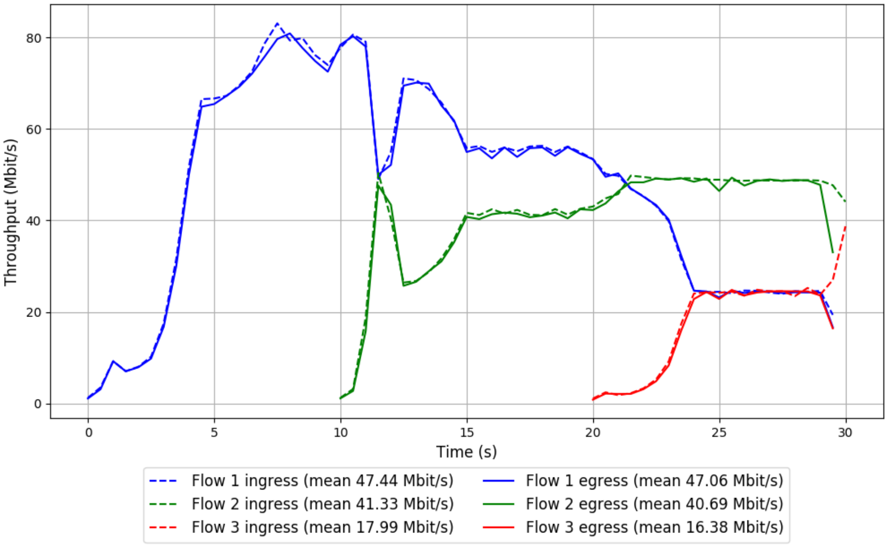
Run 9: Report of Vivace-loss — Data Link

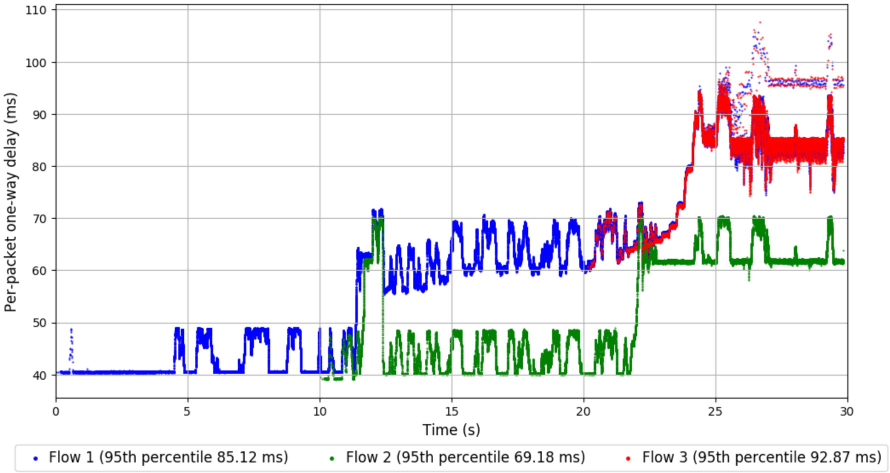




```
Run 10: Statistics of Vivace-loss

Start at: 2018-04-03 21:09:33
End at: 2018-04-03 21:10:03
Local clock offset: 0.658 ms
Remote clock offset: -4.723 ms

# Below is generated by plot.py at 2018-04-04 02:49:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.46 Mbit/s
95th percentile per-packet one-way delay: 85.201 ms
Loss rate: 3.36%
-- Flow 1:
Average throughput: 47.06 Mbit/s
95th percentile per-packet one-way delay: 85.116 ms
Loss rate: 1.11%
-- Flow 2:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 69.177 ms
Loss rate: 4.60%
-- Flow 3:
Average throughput: 16.38 Mbit/s
95th percentile per-packet one-way delay: 92.870 ms
Loss rate: 14.70%
```

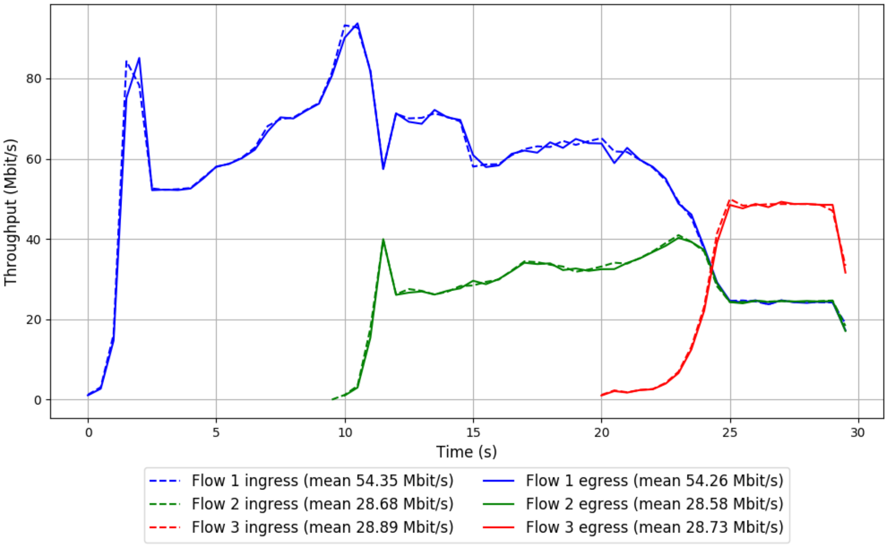
Run 10: Report of Vivace-loss — Data Link

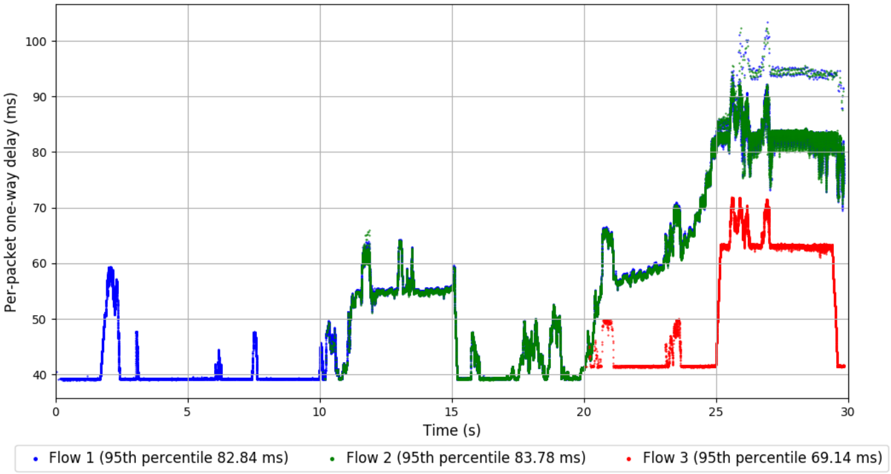




```
Run 1: Statistics of Vivace-LTE

Start at: 2018-04-03 17:17:45
End at: 2018-04-03 17:18:15
Local clock offset: 0.423 ms
Remote clock offset: -5.175 ms

# Below is generated by plot.py at 2018-04-04 02:50:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.68 Mbit/s
95th percentile per-packet one-way delay: 83.251 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 54.26 Mbit/s
95th percentile per-packet one-way delay: 82.843 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 28.58 Mbit/s
95th percentile per-packet one-way delay: 83.783 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 28.73 Mbit/s
95th percentile per-packet one-way delay: 69.136 ms
Loss rate: 1.26%
```

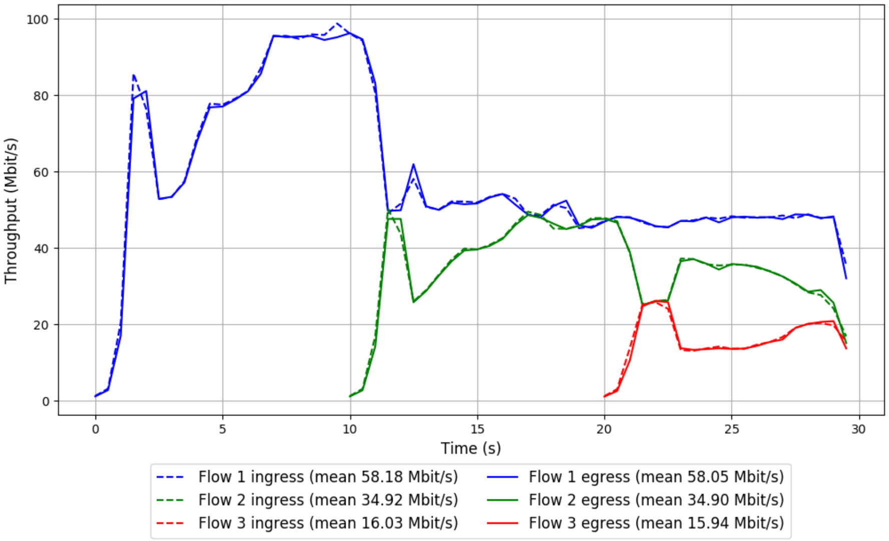
Run 1: Report of Vivace-LTE — Data Link

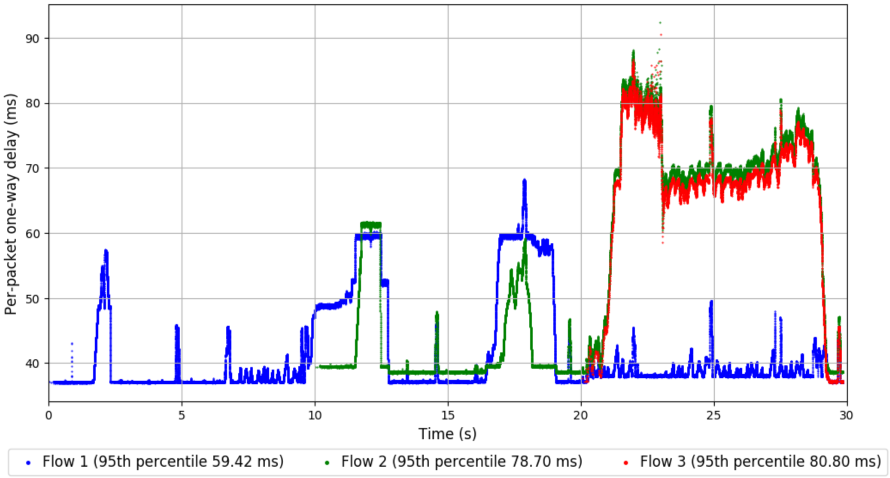




```
Run 2: Statistics of Vivace-LTE

Start at: 2018-04-03 17:42:51
End at: 2018-04-03 17:43:21
Local clock offset: 0.496 ms
Remote clock offset: -4.622 ms

# Below is generated by plot.py at 2018-04-04 02:50:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.47 Mbit/s
95th percentile per-packet one-way delay: 73.363 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 58.05 Mbit/s
95th percentile per-packet one-way delay: 59.423 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 34.90 Mbit/s
95th percentile per-packet one-way delay: 78.702 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 15.94 Mbit/s
95th percentile per-packet one-way delay: 80.798 ms
Loss rate: 1.19%
```

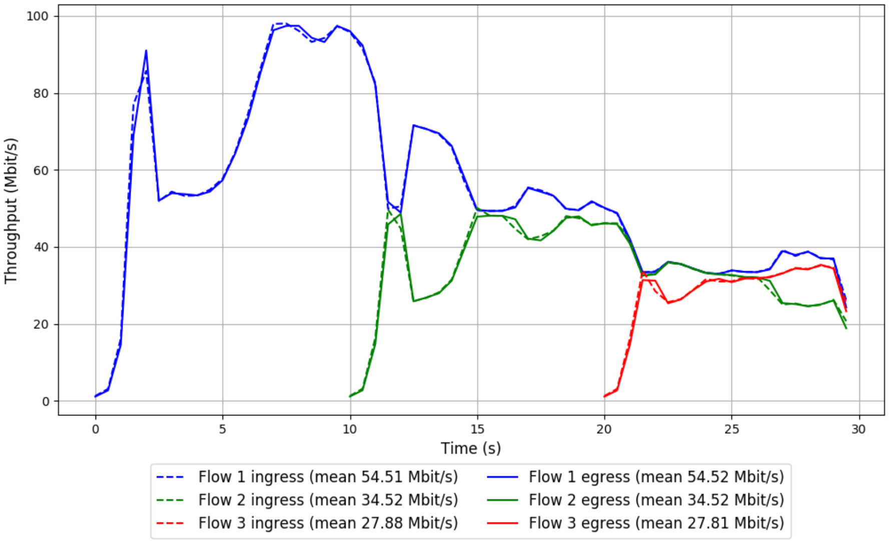
Run 2: Report of Vivace-LTE — Data Link

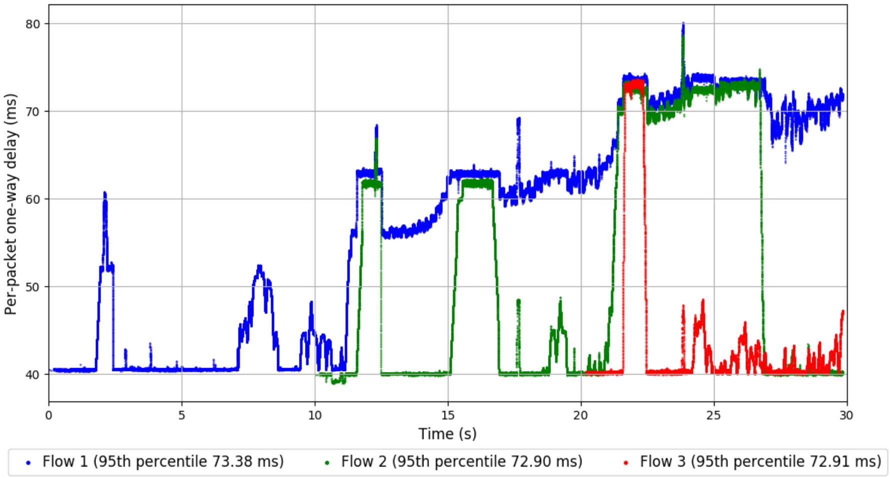




```
Run 3: Statistics of Vivace-LTE

Start at: 2018-04-03 18:07:41
End at: 2018-04-03 18:08:11
Local clock offset: 0.17 ms
Remote clock offset: -4.41 ms

# Below is generated by plot.py at 2018-04-04 02:50:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.60 Mbit/s
95th percentile per-packet one-way delay: 73.089 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 54.52 Mbit/s
95th percentile per-packet one-way delay: 73.380 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 34.52 Mbit/s
95th percentile per-packet one-way delay: 72.904 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 27.81 Mbit/s
95th percentile per-packet one-way delay: 72.914 ms
Loss rate: 0.93%
```

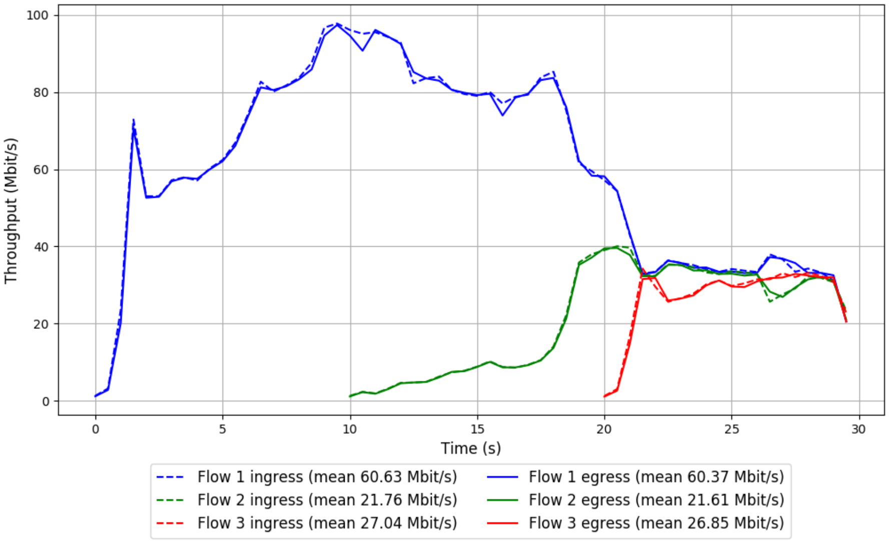
Run 3: Report of Vivace-LTE — Data Link

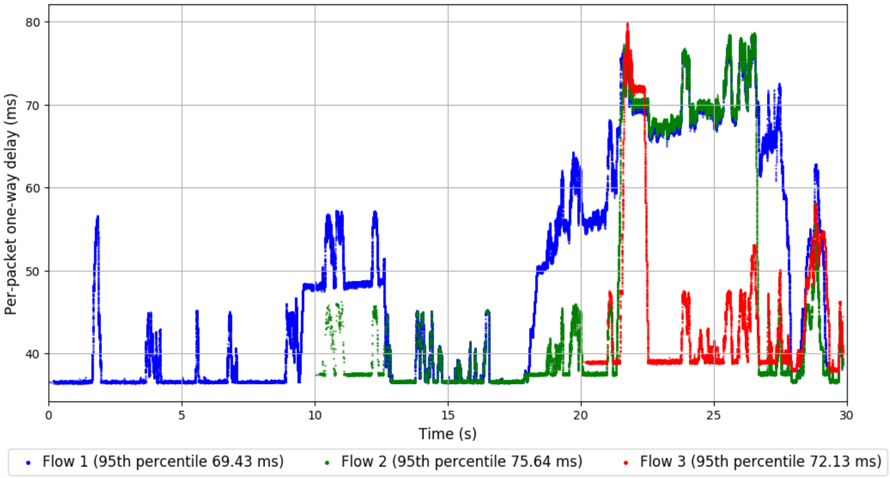




```
Run 4: Statistics of Vivace-LTE

Start at: 2018-04-03 18:32:51
End at: 2018-04-03 18:33:21
Local clock offset: 0.095 ms
Remote clock offset: -4.557 ms

# Below is generated by plot.py at 2018-04-04 02:50:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.54 Mbit/s
95th percentile per-packet one-way delay: 71.683 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 60.37 Mbit/s
95th percentile per-packet one-way delay: 69.432 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 21.61 Mbit/s
95th percentile per-packet one-way delay: 75.645 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 26.85 Mbit/s
95th percentile per-packet one-way delay: 72.127 ms
Loss rate: 1.38%
```

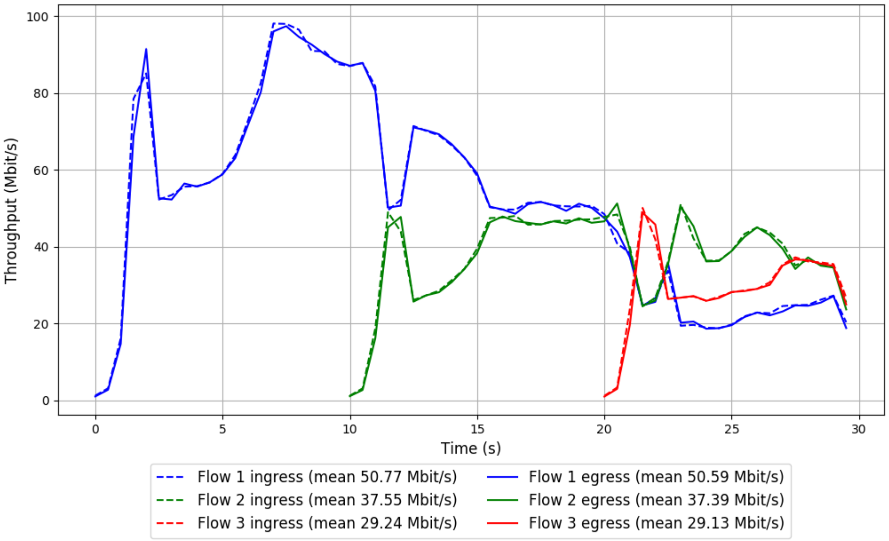
Run 4: Report of Vivace-LTE — Data Link

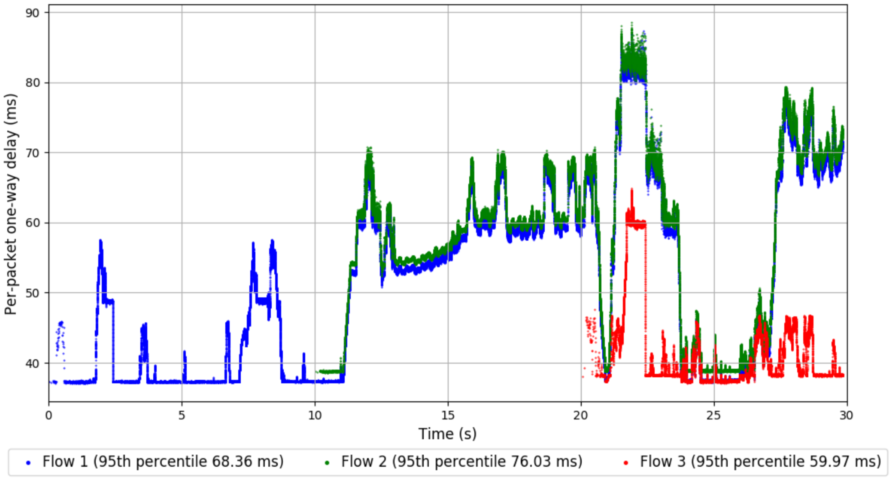




```
Run 5: Statistics of Vivace-LTE

Start at: 2018-04-03 18:58:15
End at: 2018-04-03 18:58:45
Local clock offset: -0.043 ms
Remote clock offset: -4.827 ms

# Below is generated by plot.py at 2018-04-04 02:50:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.00 Mbit/s
95th percentile per-packet one-way delay: 71.019 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 50.59 Mbit/s
95th percentile per-packet one-way delay: 68.358 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 37.39 Mbit/s
95th percentile per-packet one-way delay: 76.034 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 29.13 Mbit/s
95th percentile per-packet one-way delay: 59.973 ms
Loss rate: 1.07%
```

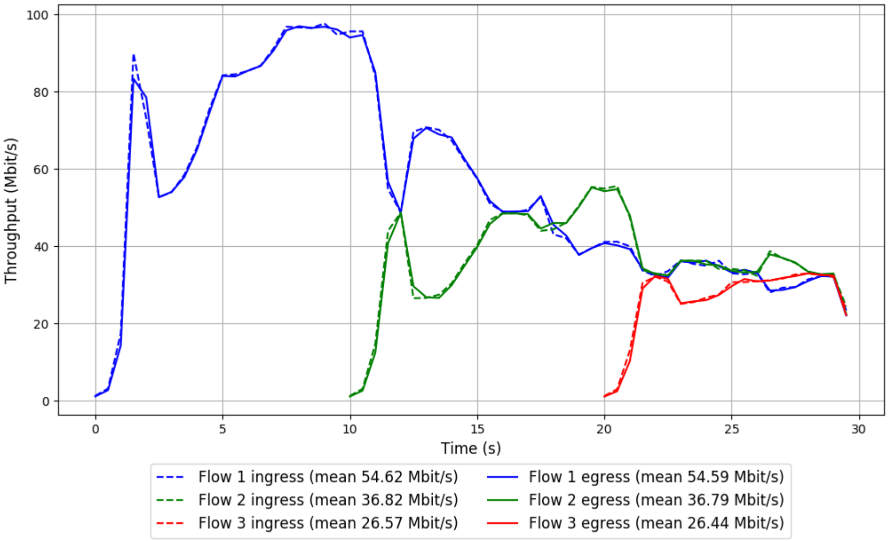
Run 5: Report of Vivace-LTE — Data Link

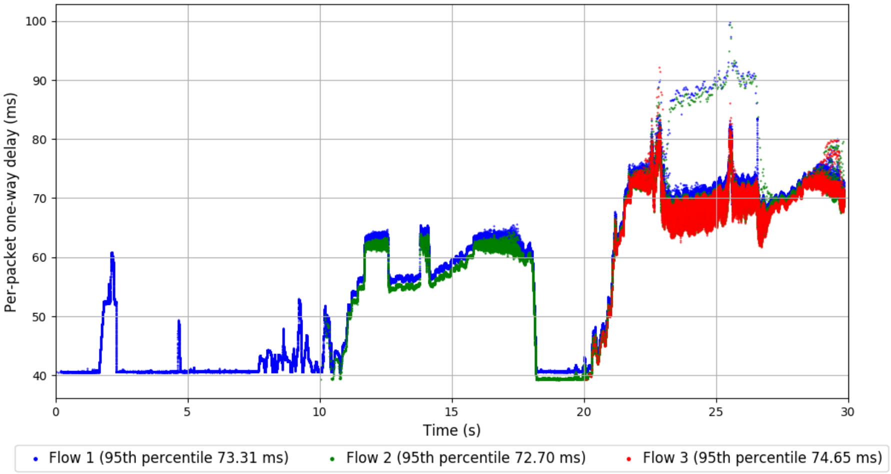




```
Run 6: Statistics of Vivace-LTE

Start at: 2018-04-03 19:23:28
End at: 2018-04-03 19:23:58
Local clock offset: -0.51 ms
Remote clock offset: -5.141 ms

# Below is generated by plot.py at 2018-04-04 02:50:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.71 Mbit/s
95th percentile per-packet one-way delay: 73.211 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 54.59 Mbit/s
95th percentile per-packet one-way delay: 73.309 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 36.79 Mbit/s
95th percentile per-packet one-way delay: 72.701 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 26.44 Mbit/s
95th percentile per-packet one-way delay: 74.653 ms
Loss rate: 1.16%
```

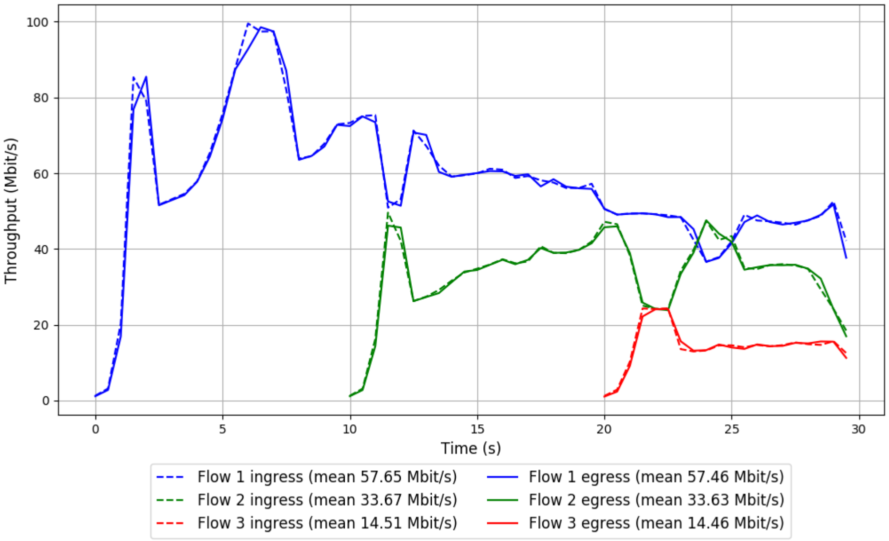
Run 6: Report of Vivace-LTE — Data Link

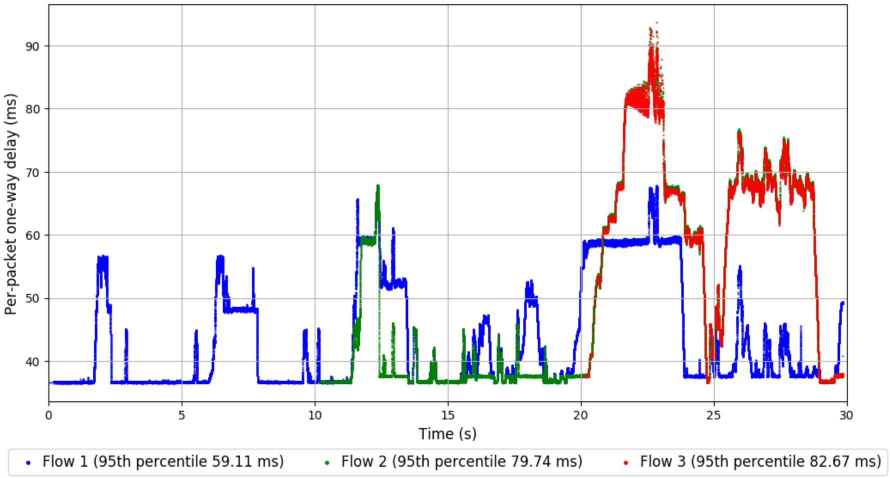




```
Run 7: Statistics of Vivace-LTE

Start at: 2018-04-03 19:48:30
End at: 2018-04-03 19:49:00
Local clock offset: 0.059 ms
Remote clock offset: -2.817 ms

# Below is generated by plot.py at 2018-04-04 02:50:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.55 Mbit/s
95th percentile per-packet one-way delay: 68.893 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 57.46 Mbit/s
95th percentile per-packet one-way delay: 59.109 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 33.63 Mbit/s
95th percentile per-packet one-way delay: 79.742 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 14.46 Mbit/s
95th percentile per-packet one-way delay: 82.667 ms
Loss rate: 1.02%
```

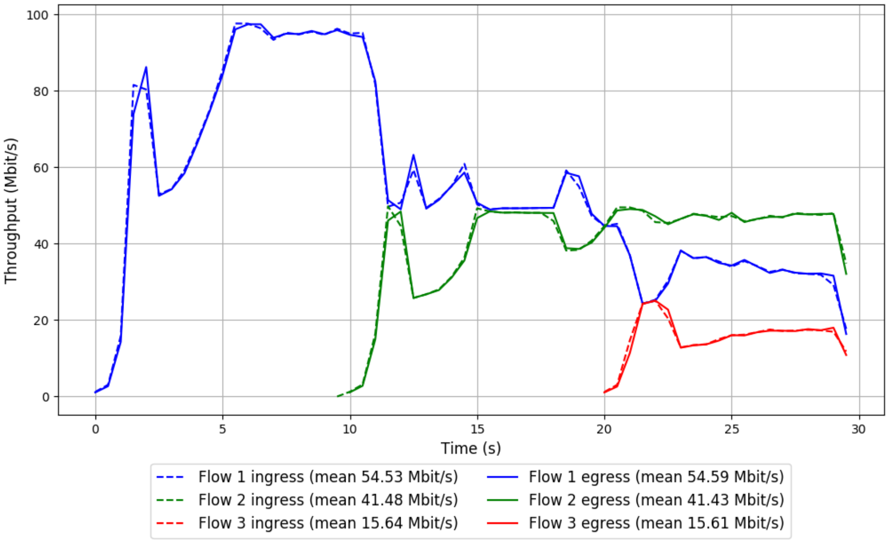
Run 7: Report of Vivace-LTE — Data Link

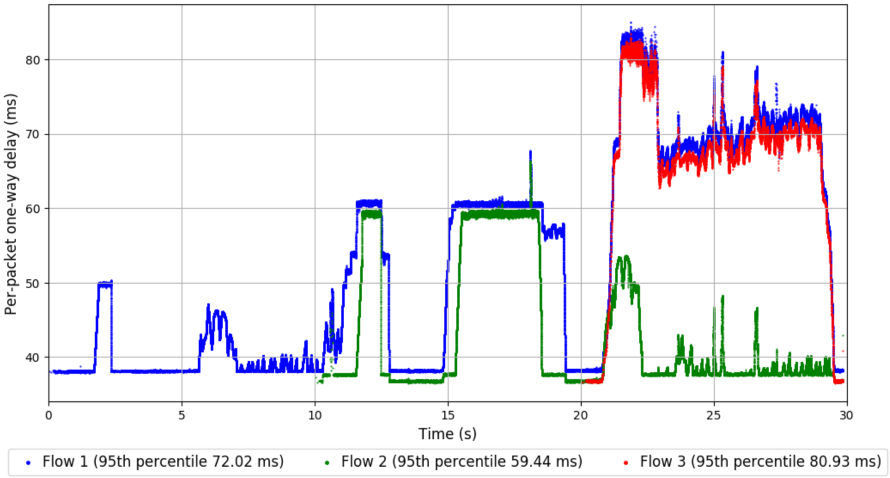




```
Run 8: Statistics of Vivace-LTE

Start at: 2018-04-03 20:13:36
End at: 2018-04-03 20:14:06
Local clock offset: 0.589 ms
Remote clock offset: -1.735 ms

# Below is generated by plot.py at 2018-04-04 02:50:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.25 Mbit/s
95th percentile per-packet one-way delay: 71.742 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 54.59 Mbit/s
95th percentile per-packet one-way delay: 72.022 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 41.43 Mbit/s
95th percentile per-packet one-way delay: 59.441 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 15.61 Mbit/s
95th percentile per-packet one-way delay: 80.928 ms
Loss rate: 0.81%
```

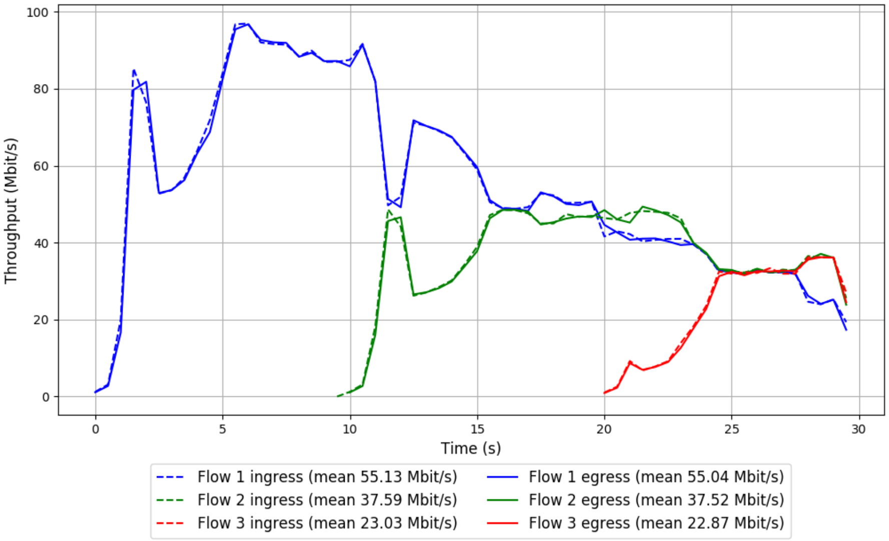
Run 8: Report of Vivace-LTE — Data Link

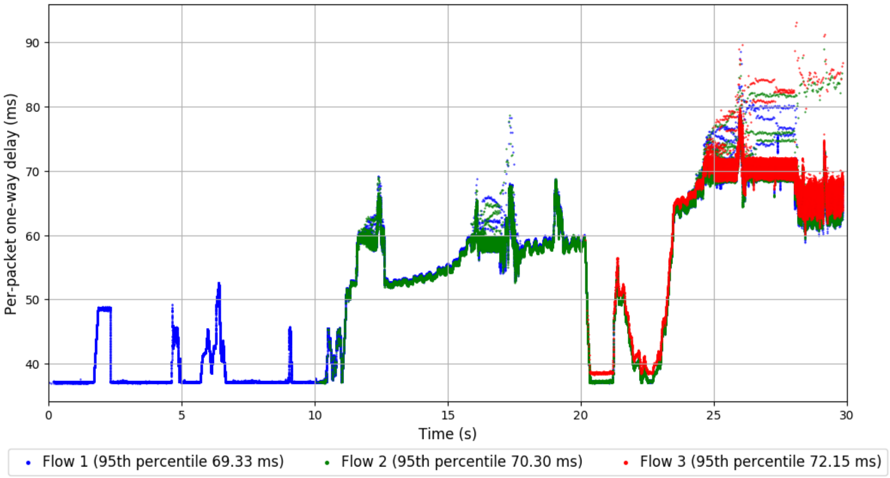




```
Run 9: Statistics of Vivace-LTE

Start at: 2018-04-03 20:38:36
End at: 2018-04-03 20:39:06
Local clock offset: 0.939 ms
Remote clock offset: -1.501 ms

# Below is generated by plot.py at 2018-04-04 02:51:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.45 Mbit/s
95th percentile per-packet one-way delay: 70.421 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 55.04 Mbit/s
95th percentile per-packet one-way delay: 69.328 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 37.52 Mbit/s
95th percentile per-packet one-way delay: 70.304 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 22.87 Mbit/s
95th percentile per-packet one-way delay: 72.152 ms
Loss rate: 1.61%
```

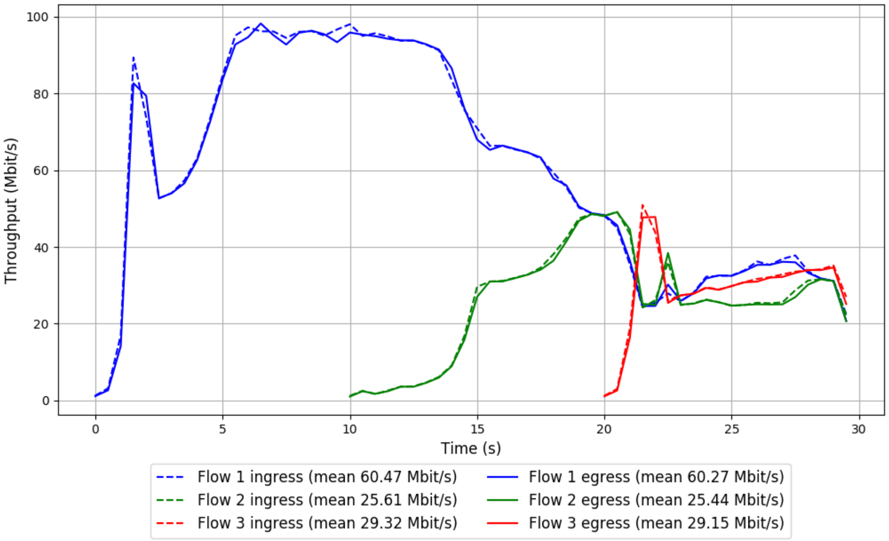
Run 9: Report of Vivace-LTE — Data Link



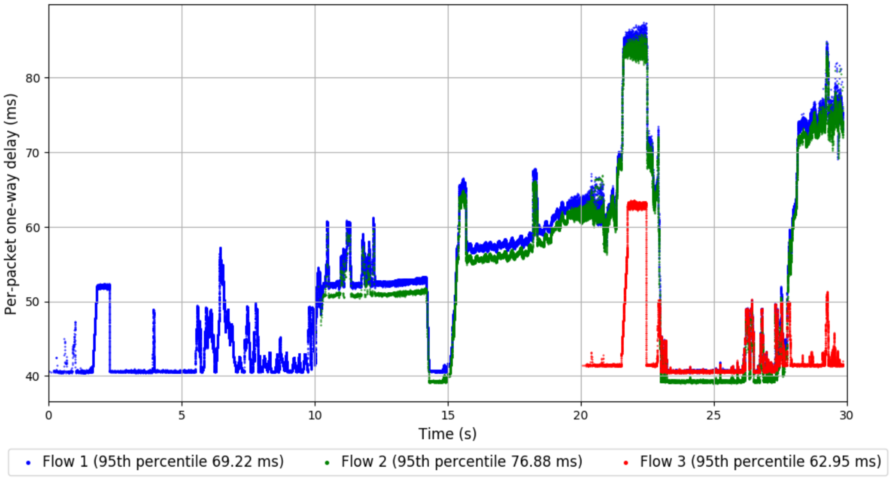


```
Run 10: Statistics of Vivace-LTE

Start at: 2018-04-03 21:04:00
End at: 2018-04-03 21:04:30
Local clock offset: 0.688 ms
Remote clock offset: -4.606 ms

# Below is generated by plot.py at 2018-04-04 02:51:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.73 Mbit/s
95th percentile per-packet one-way delay: 73.003 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 60.27 Mbit/s
95th percentile per-packet one-way delay: 69.215 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 25.44 Mbit/s
95th percentile per-packet one-way delay: 76.877 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 29.15 Mbit/s
95th percentile per-packet one-way delay: 62.950 ms
Loss rate: 1.27%
```

Run 10: Report of Vivace-LTE — Data Link



Throughput (Mbit/s)
100
80
60
40
20
0
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 60.47 Mbit/s)
Flow 1 egress (mean 60.27 Mbit/s)
Flow 2 ingress (mean 25.61 Mbit/s)
Flow 2 egress (mean 25.44 Mbit/s)
Flow 3 ingress (mean 29.32 Mbit/s)
Flow 3 egress (mean 29.15 Mbit/s)



Per-packet one-way delay (ms)
80
70
60
50
40
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 69.22 ms)
Flow 2 (95th percentile 76.88 ms)
Flow 3 (95th percentile 62.95 ms)